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Original Papers.

INFLAMMATION OF THE EAR, AND ITS RELATIONS TO WHAT IS COMMONLY CALLED "TAKING COLD."

Read before the Philadelphia County Medical Society, February 27th, 1884.

BY BENJ. J. RUDDEROW, M. D.

In presenting my paper this evening, it is not as an expert nor to specialists in this branch of medicine that I wish to speak, but to place before the general practitioner some few points that may help prevent some of the bad results which are so frequently met with as come from the tardy, timid, or ignorant management of such ear affections as arise from an ordinary catarrh, or that happen as one of the complications of sore throat, measles or scarlet fever. It is from the so-called taking cold that we find many of the acute or middle-ear diseases arising. When one is attacked with a cold, or has a more or less acute catarrh, it is generally traceable to a sudden or unexpected fall in temperature, or the exposing of a limited portion of the body to moisture, or it may be to the cooling effect of air in motion, or the depressing effect of air overheated or impure in assembly rooms, dormitories, etc. It often happens that the best conditions of ventilation and heat cannot be had; then how may the body be prepared to not only withstand the inevitable exposure, but to make a draught of air one of pleasure and of health?

Living as we ordinarily do, without a sufficient amount of active exercise out of doors, the surface of our bodies becomes morbidly sensitive to those influences that produce an acute catarrh. Thus one finds amongst people great dread of a draught, and the average person will rather incur the risk of contracting a fever or some contagious disease in a crowded vehicle or assembly, than that he should have these places freely ventilated. By far the greater majority of mankind, while resting, consider air in motion to be one of the most morbific influences that one may meet. It is this, I think, that presents us many obstacles in the way of properly ventilating public vehicles and buildings. We do not, I think, find many persons so educated as to endure, when at rest, air in motion, far less to find pleasure and health from it.

But I speak from experience when I say it is very easy to overcome this morbid sensitiveness and often fatal tendency to become an easy victim to the causes of a common cold. But how may one teach himself to endure a draught and lessen the tendency to catch cold? By first diminishing the morbid sensibility of the body to catch cold, and this can be best brought about by a graduated exposure and friction of the skin in a daily air or sun-bath, to be followed by such local sponge-baths as one may be able to react from speedily. This reaction to be speedy and spontaneous, it is necessary that the temperature of the water should not be much lower than 80° Fahr.

With the first air-bath it is well that the body should be exposed but for a short time only, as, for instance, the time taken to walk briskly across an ordinary bed-chamber. Soon by a little practice in this way, the time of exposure may be prolonged to fifteen or twenty minutes, and the temperature of the bath used accommodated to that of the outer air. The healthful effects of these exposures may be still further increased by two or three deep, chest-filling inspirations, with closed mouth, and by a few such movements of the arms as would tend to invigorate the chest-muscles and quicken somewhat the action of the heart. About four times a week, before any water is applied, and while taking the air-bath, the whole surface of the body should be briskly rubbed till there is a sense of glow and warmth of the skin, with hair-mitten, flesh-brush or coarse towel. These exercises should at first be of short duration, and more especially so if the heat-producing powers of the body are low. Also, if the subject be not too feeble, the rubbing should be done by himself rather than by another, as it is thus made more beneficial. These exercises should, in all cases, not be attempted in winter, except in a sunny room or one heated artificially.

We should bear in mind that the object of our treatment is to make the body less morbidly sensible by the exposing of the entire skin surface daily to air, light friction and cleansing, in an atmosphere nearly like the prevailing temperature. These daily air-baths should not be indulged in for too long a time, nor yet should invalids indulge in the full practice at once, but enter upon it deliberately and cautiously, as one not

knowing how to swim enters the water gradually. These few hints with the cautions given, will, in a few weeks, make almost any one not only less susceptible of taking cold, but better in every way; but at the same time I do not wish it to be understood that by training the body to be less susceptible to the sudden changes in temperature, one may with impunity, without hat or coat, stand exposed to a northeaster.

In the preventive treatment of catarrhal affections of the middle ear, food, clothing and exercise are hygienic factors that have important relations in the causation of catching cold. Alcoholic stimulants, even in moderate doses, do increase the liability of taking a cold, and one who has been deluded by the idea that that by so doing he can keep out cold, had best immediately put on an additional covering to keep his animal heat in. As a rule, except in certain conditions, alcohol is a very bad food, and what those conditions are has not as yet been determined with anything approaching an agreement by even the most learned chemists and physiologists. Articles of food that help produce dyspepsia, such as greasy fries, hashes, and other messes found on the tea and supper table, so fearfully and wonderfully made, should be avoided. Train the stomach and digestive organs to be the servant, not the master; keep them in vigorous action by the use of coarse farinaceous foods and milk. The farinacous articles of food contain not only many tissue-building ingredients that are indispensable, but in a mechanical way, by their contact with the digestive organs, do a work similar to that which friction of the skin does for the surface of the body in hastening the desquamation of effete and sticky epithelium and the cleansing of the follicles.

Let the breakfast be one of thoroughly boiled farinaceous food, eggs, milk or cream and fruit; a light lunch of fruit, or milk and bread; dinner hearty, but free from condiments and spices, including fish, meat and vegetables; the tea somewhat similar to the breakfast. As to clothing, flannel should be worn next the skin, day and night, by persons of all ages. The notion that one can toughen children by insufficient clothing and a promiscuous diet, is a fallacy, as we all know.

We often meet people, otherwise intelligent, who keep the legs and chest of their children bare, and go themselves without flannels from the supposed good health of savages and paupers. The flannels worn by day should be changed at night, and when taken off should be turned inside out and allowed to dry and air thoroughly. The neck-ties and bands should be loose, so as not to check the return circulation in the neck; the foot-covering thick, loose, and low-heeled, with a broad sole, allowing the interosseous spaces room, so as not to press on the nerves and vessels that vivify the toes.

From the preventive measures, we will pass to some of those conditions which demand promptness on the part of the medical practitioner in his effort to cure the external or middle ear inflammation at the earliest moment. It is not necessary to systematically go over the various diseases, my purpose being to give a few points that may be of use to the general practitioner, and not my views or opinions as an expert.

Every medical man should be able to distinguish the drum-head or tympanic membrane, and any one who can introduce a catheter can incise a drum-head. Earache, generally badly treated, arises commonly in the beginning from one or two forms of ear disease, either inflammation of the dermoid or periosteal lining of the external auditory canal, or an acute inflammation of the middle ear. Pain and deafness often occur in the course of common boils in the external auditory canal. How is one to make the distinction between such a disease or something deeper seated. Each one should make himself so familiar with the external auditory canal as to tell at sight, whether a given canal is changed in calibre or not, and if changed what is the nature of the change. Inspect the canal, and with a probe, guarded with a piece of cotton, explore it thoroughly, carrying the probe around its entire circumference, touching each segment. In this way one can ascertain whether there is a focus of local inflammation, and having found it, then with a sharp curved bistoury, incise clear down to the bone. The earlier this is done the better. After the incision is made, foment the ear with warm water from a fountain syringe; poultices in these cases to be avoided, as the uninterrupted application of heat tends to beget œdema, making the canal more or less boggy, thus

helping to produce a successive crop of boils, or setting up an obstinate or diffuse inflammation. If incision should do no good, apply one or two leeches in the hollow at the base of the tragus, half an inch in on the front wall of the external auditory canal. Two or three leeches applied in the position mentioned I have found to do more good than when applied in front of the tragus, or over the mastoid, except there be an inflammation of the mastoid cells, commencing to outcrop behind the external ear.

Persons consult us in reference to pain and deafness in the ear; they tell us that they have had a cold, a sore throat, or have been using a nasal douche; their rest has been broken, they have had continual pain and agony; what are we to do—order a poultice, and give an anodyne to relieve the pain, or, if in the case of a child, tell the parents to apply a poultice and await the discharge of pus? It is just such cases treated in this way that go to make up a large bulk of incurable cases of otorrhœa; they are the ones that worry the aurist by their obstinate character, and end in fatal temporal or bone disease. When consulting a patient suffering as above, act promptly. Take the hearing distance with the watch, examine the auditory canal and see that there is no inflammation there external to the drum-head. Apply leeches inside the hollow of the tragus, favor bleeding by hot fomentations, and if the pain and deafness are not relieved within a few hours, incise the drum-head with a fine straight knife or bistoury. Carry the incision from just below the extremity of the long process of the malleus to the lower border of the membrane. After this has been done, inflate the ear with a Politzer inflator, or get the patient to hold his nostrils closed by means of his fingers, and then blow strongly with closed mouth into the nostrils.

Syringe the ears with a warm solution of salt and water, carbonate of soda, or boracic acid. This syringing with warm water is objected to by many. After the syringing give your anodynes; not before, as the relief given before the incision may mask the processes going on in the ear, and stupefy your patient until something bursts, that mean generally a more or less hopeless rent in the membrane, or, this not happening, a thorough invasion of the mastoid cells. Repeat the leeches if necessary and the paracentesis to cut short the inflammation. Though the paracentesis should be done every day for a week or more, one need not be afraid, I think, of injuring it, as it will not do as much harm as to leave the products of inflammation dammed up in the drum-cavity, to destroy by their macerating process the machinery, threaten the portals of the internal ear, stuff the mastoid cells, or break through a more or less disorganized ear-drum. As a rule, persons suffering with ear-ache need not be kept indoors except for a few hours, unless in bad weather. Moderate walking appears to lessen the pain, and seems, whether from the posture of the body or the influence of that form of locomotion upon the circulation in the head, to quicken the healthy process of resolution. Give the anodynes when the pain is severe, and encourage the sufferer to walk about slowly until a decided sleepiness is induced. But the principal object in this stage of the disease is to keep a free opening through an artificial drum opening, in order to allow of the escape of all inflammatory products. See the patient every five or six hours during the first two or three days, and whenever it appears that the opening has closed that has been previously made, repeat the paracentesis. If the opening previously made should be closed, if possible pass your knife through it, but if that cannot be done, then make an incision through the lower part of the drum, below the malleus.

Morphia, chloral and bromide of potassium to relieve pain, often a large dose of bromide, with a hypodermic, will produce happy results. Some form of magnesia salts is, I think, an admirable laxative, or the bitter water alone, or with hot water, a gill or two of the former to a pint of the latter. Let the diet be nutritive, especially in the early part of the day, but as the pain occurs mostly at night, it is best not to fill the stomach at that time.

One cannot be too prompt on evacuating the middle ear when there is an inflammation of that part. Delay is dangerous, and the paracentesis does no harm.

In measles and scarlet fever, examine the ears daily, and anticipate, if possible, the ulceration of a tympanic membrane, which so frequently occurs in the progress of these diseases. If the general practitioner would only examine daily the ears

of those afflicted with scarlet fever or measles, and, finding them inflamed, treat them promptly, a great number of those obstinate or incurable otorrhœas and middle-ear troubles met with would be prevented.

No practitioner is really prepared to treat a case of scarlet fever or measles who is not able, at least, to recognize the drum head when he sees it, and to perform the simple operation of paracentesis.

CRITICISMS, FROM A CHEMICAL POINT OF VIEW, ON SOME FAVORITE PRESCRIPTIONS.*

BY HENRY LEFFMANN, M. D.

The few points that I present to the College this evening will include little that is absolutely new, but I think the time will not be entirely wasted as I know that the prescription list of most of our drug stores will give numerous examples of the violation of chemical principles here mentioned. My attention was called to this topic by my being shown by an apothecary a prescription calling for—

Syr. hypophosph.,
Tinc. ferri chlor.,
Acid. phosp. dil.;

concerning which he said that in the proportions ordered he could never make the mixture up clear. I examined the precipitate and found in it, as I had expected, a large proportion of the iron and other basic ingredients. This is a simple case of incompatibility. Turning the matter over in my mind, it has seemed to me that while some attention is paid to cautioning students as to the general nature of incompatibility, very little or none is given, especially in the shallow chemical teaching of many medical schools, to the properties and qualities of chemical substances in their relations to the animal tissues, and the manner of administration. I present here, therefore, a brief consideration of a few well-known remedies.

Under the name of *colorless tincture of iodine*, several preparations are used, depending for their popularity on the fact that they do not stain the skin. They are prepared either by the use of ammonia or of sodium sulphite or hyposulphite. They owe their particular property, or rather absence of property, to the neutralization of the iodine, and just to the extent that the iodine is decolorized is it to the same extent deprived of virture. The free active affinity of the iodine, to which its local action must be due, is destroyed in these preparations, and the destruction is not slow or uncertain, but in two of the methods mentioned, it is sufficiently rapid and definite to be made the basis of a method of quantitive analysis. It is certainly difficult to see how any person could go so wide of simple chemical principles as to invent or employ this mixture.

Potassium chlorate or, as it is still erroneously called by many, chlorate of potash, is a remedy concerning which extraordinary claims have been made, based upon most erroneous notions of its chemical qualities. It is employed in the laboratory as a source of oxygen; knowledge of this fact has led to its employment as an oxidizing agent in diseases which have been supposed to express deficient oxidation. I have nothing to say here as to the clinical results obtained from potassium chlorate in any disease—although it is much less in favor than formerly—but I enter a protest against any advocacy of its usefulness as an oxidizing agent. Under temperatures and conditions, such as that which it meets in the human system, it is one of the most stable of bodies, does not part with its oxygen or chlorine, and, indeed, will not begin to do so except under very high heat. I have found by actual experiment that ten grains of the salt kept for two hours at a temperature of 100° Fah, in contact with an artificial gastric juice did not develop oxidizing qualities sufficient to oxidize one-sixtieth of a grain of phosphorus. This experiment is merely confirmatory of what every-day experience with the substance teaches.

Potassium permanganate has been more or less in favor with physicians for a score of years. It is well known as an oxidizing agent, its powers in this respect are well marked. It is as little suitable for internal administration for such purpose as the body just considered, but for an opposite reason. Its chemical properties are developed by almost every substance, and in the doses in which it is given it will be decomposed and rendered inert very shortly after being swallowed. Within a very re-

*Read before the College of Physicians of Phila., April 2, 1884.

cent period the salt has come into notice as a remedy for amenorrhœa, and great has been the tribulation of apothecaries. It has been given in pill form, and all the usual excipients have been unavailable. I have made a few tests of the permanganate pills now in the market, and I find in regard to those made by one of the most reliable houses in this city that the permanganate is all decomposed and converted into the insoluble manganese dioxide. The preparations of two other manufacturers made up with some mineral excipient, probably kaolin, were in good condition, but as soon as placed in a mixture of hydrochloric acid and pepsin they begin to decompose into insoluble manganese oxide. These pills vary in strength from one-eighth to one grain; this small quantity of permanganate certainly must soon decompose in the stomach, and the only virtue which it can have is from the manganese itself, and if this is effective, common sense would seem to suggest that the result could be best obtained by exhibiting some definite compound of manganese, such as the chloride or sulphate. When we consider the chemical relations of the salt and almost certain inertness of it in small doses, the gravity with which the learned English therapeutists, who recommended it in amenorrhœa, have discussed the possibility of its producing abortion becomes almost burlesque. I do not desire, of course, to impugn the clinical observations that have been recorded on this point, but I feel obliged to say that if the insoluble and variable decomposition products of one-eighth of a grain of potassium permanganate can affect the function of any one organ then the difference between us and the apostles of the infinitesimal is small indeed.

I cannot dismiss these two compounds, which owe their popularity to mistaken notions of their properties, without saying a word or two as to the exhibition of oxidizing agents. If rational therapeutics or physiological study indicates remedies of the so-called oxidizing class, then it will be found that no better agents are known to us than those which have long been in our hands. In nitric acid, nitro-muriatic acid, and chlorinated soda we have substances which are sufficiently stable to resist the organic bodies of the saliva and gastric juice, and are sufficiently active to give oxidizing effects if such can be obtained other than local action. I have grave doubts whether the nutritious fluids of the body can be oxidized by any method, but there can be no doubt whatever that such effect cannot be attained by either a body—potassium chlorate—which yields its oxygen only at a red heat, nor by one —permanganate—that decomposes the moment it touches any form of organic matter. Some years since a correspondent in one of our medical journals gravely recommended the use of raspberry syrup to disguise the taste of potassium permanganate. It was of course entirely successful, the taste was destroyed, so was the compound.

Caffeine citrate is a remedy much in favor and is a remarkable instance of how much physicians take for granted in the remedies they use. There is no caffeine citrate in the market, and it is doubtful whether any such a salt can be prepared. The commercial preparations are either pure caffeine or variable mixtures of it with citric acid.

The manufacturers in this city each furnish a different article, except in cases in which they buy from a common source; and a house in a neighboring city furnishes an article which contains no citric acid. Some of the samples are purely bitter in taste, while others are distinctly sour. Analysis of some of the commercial salts are recorded in a paper read before the last meeting of the American Pharmaceutical Association by Dr. G. C. Wheeler. He found the quantities of caffeine varied from 96.5 per cent. to 63.5 per cent.; of citric acid from 63.5 per cent. to 3 5 per cent.; none of these figures correspond with the proportion of a true citrate.

It seems to me that accurate clinical observation cannot be made with a preparation of so uncertain a character; for, as seen by these figures, the proportion of active ingredient may vary 33 per cent., and the lesson that these analyses teaches us is that when the effects of caffeine are wanted they are best obtained by the use of the pure alkaloid, and not by a pretended and uncertain compound of it.

To overcome the odor of chloroform Prof. Nussbaum has a few drops of oil of cloves placed on the towel before giving the anæsthetic. The addition of one part to six of cologne to ether makes it much more easy of administration.

Society Reports.

PROCEEDINGS OF THE MEDICAL SOCIETY, DISTRICT OF COLUMBIA.

STATED MEETING, HELD APRIL 9TH, 1884.

(*Specially reported for Maryland Medical Journal.*)

The Society met with the Vice-President, DR. W. H. TAYLOR, in the Chair, DR. T. E. MCARDLE, Secretary.

Dr. D. S. Lamb presented a heart and uterus obtained at a recent autopsy of a case of puerperal peritonitis. A colored woman, age 25, died at the end of the fifth week after parturition. She had had rheumatic pains in the legs, more especially the calves; and pain in the abdomen. On the day of her death she had two convulsions, in the second of which she died. No further history obtainable.

At the autopsy the following appearances were noticed:

Head.—There was a white clot in the right lateral sinus of skull; dura mater normal; pia mater congested and with patches of ecchymosis; subarachnoidal fluid on right side turbid, dark and contained some lymph. Brain generally firm but softened in the situation of the island of Reil and adjoining fronto-parietal convolutions of right side, the softening extending to corpus striatum and opening the descending cornu. No thrombosis or embolism of arteries *discovered.*

Chest.—Heart enlarged; the two pericardial surfaces extensively united together so that the sac was nearly obliterated; valves normal; white clots in cavities. Some congestion and œdema of lungs; muco-purulent fluid in right bronchi.

Abdomen contained a large quantity of straw-colored serum. The opposing surfaces of uterus and rectum showed white patches of lymph, but no adhesions. Liver, spleen and kidneys in that soft, yielding condition characteristic of high temperature and blood poisoning. Kidneys weighed ten and eleven ounces respectively; a small abscess in cortical substance of left.

Urerus in state of subinvolution, length nearly five inches; mucous surfaces still raw-looking over greater extent of surface; broad ligaments much thickened, and a pocket of pus in the left; ovaries and fimbriæ congested: Vagina livid and discharging fetid liquid. A few ecchymoses of the bladder.

The interpretation of the specimens together with the history seems to be as follows:

In the order of time, parturition, puerperal septicæmia; pelvic cellulitis, and peritonitis with higher temperature, manifested especially in the abdominal solid viscera; and septic embolism of brain and of left kidney. The adhesive pericarditis was undoubtedly older than could be explained by this acute attack.

PUERPERAL SEPTICÆMIA TREATED BY COLD COIL.—*Parke G. Young, M. D.*—I was called to Mrs. W., primipara, aged 28, at 11 A. M., on the 22nd of February. She was delivered at 3 P. M. with a loss of three pints of blood in the first ten minutes. The placenta was immediately delivered—ergot given and compression of uterus used until perfect contraction was procured. She did well until the morning of the 24th, when I found her temperature at 103° and pulse 120. She was ordered 20 grains of quinine and plenty of milk and beef tea. On the 25th I discovered a slight odor from the lochia and ordered carbolized injections every 4 hours. There was on examination laceration of the perineum, but none of the cervix. Her temperature varied from 103° to 103½° during the day. From the 26th of Feb. to the 3rd day of March I continued the quinine, regulating the bowels and giving from 2 to 3 quarts of milk a day, with some solid food. During the whole time there was no offensive discharge; no sweating; no abnominal tenderness or tympanites. She expressed herself as being perfectly well and slept well, and yet her temperature remained at 103° and 104°. On the morning of the 3rd I found her flighty; had slept badly; her temperature had risen to 104½° and pulse 130. She was ordered iced cloths to the head and abdomen and an ounce of Warburg's tincture. Called in two hours and found pulse 110 and temperature 101½°. She complained greatly of the cold applications and they were discontinued. Saw her again in 4 hours and found temperature 103½° ordered her a half ounce of Warburg's tincture and cold application renewed. In an hour the temperature was 102.° I visited her at 9 A. M. on the 4th; the nurse reported her as having a very bad night; the fever had risen and she would not allow the cold applications. I found her laughing and grinning with well developed mania; passing urine involuntarily; pulse 140 and temperature 104½°. She was given 30 grains of bromide every 6 hours with the treatment of the previous day. At 12 M. called and found temperature 103½°; delirium slightly better; she rebelled against the cold applications; said the bladders were too heavy and the cloths wet her. At 9 A. M. on the 5th her temperature was 105°; general condition the same; ordered chloral and bromide of potash with an ounce Warburg's tincture. Saw her again at 4 P. M. (temp. 103½°;) with Dr. Johnson, when she was ordered a suppository of 30 grains of quinine and cold applied by a coil of rubber tubing over the abdomen. The temperature fell one degree in half hour use of

rubber tubing by myself. On the 6th and 7th all the symptoms repeated themselves and we couldn't persuade the family to carry out instructions about the use of the coil; but at 4 P. M. on the latter date, after a serious talk with the husband, the coil was applied, when her temperature was 105° and pulse 140. At 10 P. M. we found the temperature 102½°. The husband was delighted at the change and promised faithfully to carry out instructions. We ordered instead of the bromide and chloral 30 drops of McMunn's elixir, repeated in 4 hours if she slept none—the coil used whenever the temperature was above 101°. At 10 A. M. on the 8th her temperature was 100°; mental symptoms no better. The quinine was continued with the bromide. Dr. Johnson saw her again with me 4 P. M; her temperature had risen to 102½°. The coil reduced it in an hour to 100° and was discontinued. At 10 A. M. on the 9th we found her temperature 100°; pulse very weak, and the nurse reported a fall of temperature at 6 in the morning to 96°. She was ordered ℥ ss of whiskey every 4 hours. From this date to 16th she was under my charge, the mania developing every day when she was transferred to Mount Hope.

Puerperal Septicæmia and Peritonitis.—I was called to Mrs. R., aged 32, multipara on the 11th of March. She had been delivered of twins in a labor of an hour on the 9th, and when seen her temperature was 104° and pulse 130. There was great abdominal tenderness and tympanites with a severe cough. The lochia were abundant, and on examination the uterus proved to be badly contracted, with a severely lacerated and patulous os. She was ordered an opiate and turpentine mixture, with 5 grains of quinine and 15 drops of ergot every 4 hours. At 5 P. M., 8 hours afterwards, her temperature was 103°, pulse 118. At 11 A. M., on the 12th, her temperature was again 104° and pulse 130, the cough and tympanites relieved, but complaining of the abdominal tenderness and pain and frequent chilliness. She was ordered 20 grains of quinine in two doses, at 3 hours interval. At 4 P. M. the temp rature was 103½°, pulse 130. The 13th saw a repetition of the 12th. At 11 A. M., on the 14th, her temperature was 104°, pulse 130, and the lochia very offensive for the first time. The uterus was immediately washed out with carbolised water, and vaginal injections ordered, with cold cloths over the abdomen in addition to the previous treatment. Called again at 4 P. M. and found temperature 103½°, pulse 120, and the odor from the lochia relieved. At 11 A. M., on the 15th, the temperature was 104¼,° pulse 134; ordered her instead of the quinine a half ounce of Warburg's tincture, to be repeated in 3 hours. Saw her at 4 P. M., and found the temperature 102¾, pulse 124. At 11 A. M., on the 16th, the temperature was 104½°, pulse 138 to 148. I found her lying on her back with her knees well drawn up; complaining that her abdomen was so tender that she could'nt bear the bedclothes on it; and so dreaded the terrible pains moving brought on, that she hadn't stirred during the night, and even feared any one approaching her bed. She had had no rest, was very nervous, and suffered extremely from the examination, which revealed a yet dilated os, but no discharge. The Warburg tincture was repeated with an increased amount of opium and turpentine. At 4.30 P. M. the temperature was 102¾°, pulse 120. At 9 P. M. temperature was 104°, pulse 140. At 10 A. M., 17th, temperature had risen to 105°, pulse 148 to 158. The patient was delirious, and refusing for the first time the milk or other nourishment, and the other symptoms were unabated. The treatment was repeated, and they were directed how to make and use the coil. Called again at 3 P. M. and found the temperature 104¼°. They had failed to get the tubing. I waited, and applied it with directions to continue until my return. Visited her at 7 P. M., 4 hours afterwards, and found the temperature 100⅘° and pulse 110. The patient expressed herself as well, and found the coil pleasant until the last hour, when finding it too cold she had it removed. The tenderness and tympanites were decidedly better, enabling her to change her position in bed without pain for the first time in the past week. After leaving directions for its reapplication, if the temperature should rise to 102, I saw her at 11 A. M. and found the temperature 101½, pulse 115. They had only used the coil once during the night, when it had risen to 102½. From this time the symptoms steadily abated, and she was allowed to sit up in three days.

In concluding, I wish to remark that although I do not, of course, claim that the coil will abort an attack of puerperal peritonitis or septicæmia, as it apparently did in these cases, I am convinced that it will prove the most powerful weapon we have for lessening the duration and danger of diseases where high temperature is an important factor of fatality; and also to call attention to the fall in temperature of three degrees on the eighth day of the first case, after the first use of the iced cloths, and the exhibition of the Warburg tincture as being the best result obtained, except from the coil. For suggesting the use of the latter I wish to tender my thanks to Drs. Taber Johnson and Parke Young.

Dr. Taber Johnson said he was sorry he had not heard the paper read by Dr. Parke Young at the last meeting. He had some knowledge of one of the cases reported and would like to bear testimony to the efficacy of the treatment adopted. He had been particularly struck by

the surprising quickness with which the temperature was reduced by the use of the cold water coil. Thomas says that sometimes eight, ten, and even twenty-four hours elapse before the temperature is reduced, and he adds that it produces beneficial results only by continued use. In the case under discussion, however, the reduction of temperature was prompt and lasting. The other means of using cold are so unpleasant and disagreeable that the cold water which does not possess these defects becomes a valuable remedy. It is said also not to be so liable to cause pneumonia, bronchitis, sore throat, etc.

The occurrence of puerperal fever is such a large item that any method of controlling it will be hailed with pleasure.

Dr. W. G. Palmer saw no other special virtue in the coil than its lightness. Cold was the curative agent; but the coil might be the most convenient method of applying it.

Dr. Kleinschmidt was in doubt as to what agent might claim the credit. Dr. Young had used veratrum viride, Warburg's tincture and large doses of quinine in addition to the coil.

Dr. Young said the prompt and persistent reduction of temperature after using the coil had led him to give that agent the credit. In reply to Dr. Hagner, he said the highest temperature was 105 and that antiseptic vaginal injections had been used.

Dr. Taber Johnson said in the case seen by him all the symptoms lead to the belief that a spot between the perineum and neck of the uterus had absorbed the offending material. There was at no time the slightest pain in the abdominal viscera. The lacerated perineum exhibited plenty of absorbent space. We had prepared everything necessary for washing out the uterus, but the temperature was so materially lessened by the use of the coil and did not again ascend that it was deemed useless. The temperature, in fact, descended below normal and stimulants were given. Puerperal mania gradually developed and the patient is now in an asylum.

On motion, the discussion was closed.

A Remarkable Case of the Excessive Use of Morphine.—Dr. Livingston S. Hinkley, in the *N. Y. Med. Journal*, reports a case of a woman of good physique, twenty six years of age, weight 145, who is in the habit of taking daily twenty-five grains in the morning making a total of eighty-five grains within twenty-four hours, which Dr. Hinkley believes to be the largest quantity of morphine taken by any living being within the time mentioned.

MEDICAL AND CHIRURGICAL FACULTY OF MARYLAND.

EIGHTY-SIXTH ANNUAL SESSION.

(*Specially reported for Md. Med. Journal.*)

(*Continued from page* 940).

SECTION ON MATERIA MEDICA AND CHEMISTRY.

The report of this Section was presented and read by title, as Dr. A. Atkinson, the author of the report, was not present. Dr. Atkinson described several preparations lately introduced to the profession. Among the novelties suggested were citric acid in drachm doses in metrorrhagia; the combination of tincture of digitalis with chloral hydrate, one grain to one minim, to prevent the heart depression sometimes due to the latter alone; and boracic acid in erysipelas and the local inflammations.

SECTION ON SANITARY SCIENCE.

The report of this Section was presented by the Chairman, Dr. C. W. Chancellor, who selected as his subject "The Sanitary Needs of the Poor." Owing to the absence of Dr. Chancellor, on account of illness, the report was read by title.

A supplementary report was read by Dr. John Morris "Upon Some Sanitary Statistics in Baltimore in the Past." Dr. Morris had collected a number of interesting and humorous facts relating to the methods practiced in collecting and recording the vital statistics of the city during the early part of this century. Remarkable changes had been made in the nomenclature of diseases since 1832. A number of amusing illustrations were given of the death certificates issued.

THIRD DAY. THURSDAY, APRIL 24TH

The Faculty was called to order at 12 M. Minutes of last meeting were read and approved. The resignations of Drs. I. Bermann and J. D. Arnold were presented and accepted.

REPORT OF SECTION ON ANATOMY, PHYSIOLOGY AND PATHOLOGY.

This report was presented by Dr. J. W. Chambers, Chairman, and consisted of a report of "Four Cases of Abscess of the Brain."

Case 1.—Aet. 35, received a blow on the left frontal eminence with a dish. There was a lacerated wound two inches long with no apparent injury of the skull. There were no symptoms except insomnia until the tenth

day when epileptic convulsions, especially marked in left arm, followed by paresis of this arm supervened. When admitted to the City Hospital five weeks after the injury, there was paresis and anæsthesia of right arm and leg. On the fourth day after admission aphasic symptoms noted. On the seventh day symptoms of inflammation of the brain developed. The patient grew worse and died on the forty-sixth day after the injury. On post-mortem an abscess was found in the left lobe of brain containing three ounces of pus. The immediate cause of death was probably œdema of the brain due to pressure of the abscess.

Case II.—Injury similar to that in Case 1. On thirtieth day epileptic convulsions set in with paresis of left side. Death ensued in coma on thirty-first day. The post-mortem revealed a slight gangrene of brain substance at the site of injury. The frontal lobe contained a pus cavity the size of an orange, which had ruptured into the lateral ventricle and caused death by pressure.

Case III.—This patient had a double croupous pneumonia, which was followed by a typhoid condition, resulting in mental aberration and paralysis of left arm. Clonic convulsions set in two days before death, which occurred on the twenty-sixth day after admission in coma. Post-mortem showed the entire white substance of posterior portion of frontal, parietal and temporal lobes replaced by pus, which had ruptured into the lateral ventricle, causing death.

Case IV.—An adult female was attacked two weeks previous to her admission to the City Hospital with severe chills followed by fever and sweats of supposed malarial origin. She had severe headache, nausea and constipation, but intelligence was good. Transient coma supervened and became permanent on the second day, when death ensued. The post-mortem showed an abscess in the posterior portion of frontal and entire parietal lobes of the right hemisphere, which had ruptured into the lateral ventricle and produced death.

These cases present wide differences in causation and symptoms. Cases 1 and 2 were the result of injuries; case 3 was probably embolic, whilst case 4 was either idiopathic or due to pigmentary embolism, which sometimes occur in intermittent fever. The skulls of cases 1 and 2 were exhibited by Dr. Chambers. They illustrate a form of injury which has either not been observed by others or if observed has been mistaken for fracture. There are no evidences of depression or of fissuring in the external or internal tables. One could hardly conceive a button of bone being punched out in this manner and not driven into the substance of the brain. Dr. Chambers was of the opinion that the lesion was the result of a necrotic periostitis following contusion of the bone at the point against which the missile impinged.

A Supplementary Report from this Section was presented by Dr. Jos. T. Smith on the "Progress of Bacterial Pathology."

Dr. Smith reviewed the work of the German and French Cholera Commissions in Egypt. He instituted a comparison between the work of these Commissions and arrived at the following conclusions: The Germans had made ten autopsies and the French twenty-four. The Germans found the blood free from micro-organisms and attached but little importance to its condition. The French obtained from the blood their most important results. They found between the blood-globules small elongated bodies which the commission looked upon as the causative micro-organisms of the disease, though they failed to cultivate them. The Germans found in the intestinal walls the bacilli of cholera, the French a large number of micro-organisms but could find nothing specific in them.

REPORT OF THE SECTION ON OPHTHALMOLOGY, OTOLOGY AND LARYNGOLOGY.

The report of this Section was presented by Dr. Samuel Theobald, Chairman. The subject of "Preventable Blindness" was the topic considered. Dr. Theobald stated that there were 946 blind persons in Maryland. He estimated that one-half of these cases were preventable, though exact data on this point were not obtainable. The failure to consult a physician at the critical period was assigned as a cause. Ophthalmia neonatorum causes the largest number of cases. Boric acid grs. v to x to ℥i water should be used at the beginning of the affection. If severe, grs. xviii to the ounce, or nitrate of silver, gr. i to iii, to the ounce may be added. Atropia solution may be applied simultaneously. Scrofulous ophthalmia is very common among the poor. The treatment for this affection should be iron and bark, with sulph. atropia, gr. i to iv to the ounce and yellow oxide of mercury ointment, gr. i to the ounce, applied once daily.

Iritis is another cause which should never destroy sight. It is usually treated domestically until adhesions form, often by astringent collyria under impression of conjunctivitis; sol. atropine is the most important measure of treatment.

Granular ophthalmia destroys ten times as many as it should because of neglect. It is common in institutions where children are crowded.

Sympathetic ophthalmia is a common cause

because of neglect to have a bad eye taken out.

Glaucoma also, because often overlooked.

Acute Glaucoma is a most often confounded with neuralgia of fifth nerve.

Chronic Glaucoma with cataract.

One cause among workers in stone, etc., is neglect to wear glasses. Here we find the cornea often dotted over with opacities from particles of stone, etc., striking it.

The remedy for the above is for doctors to fit themselves for the treatment of eye diseases and to instruct patients in regard to the same.

A Supplementary Report was presented by Dr. J. J. Chisolm, from the same Section, on the "Removal of Fragments of Iron From the Eye by the Magnet." It was first practised in 1874. Gruening's instrument was exhibited. It is a powerful battery which will extract particles when brought within ¼ inch of them.

Case I.—Mechanic, æt. 24, on March 9th was struck in right eye by a piece of metal; sight lost in injured eye. Two hours after accident, came to Dr. C. with only perception of light, small wound in lower part of cornea, fulness of eyeball and stiffness of eyelids. Patient was sure no iron was present. The needle of the magnet was passed into the wound, whereupon the iron came away with it. It was ½ inch long ⅛ inch wide, and was a stout scale, one end of which was narrower than the other. Fortunately the former adhered to the magnet. Cold water and atropine constituted the treatment. An artificial cataract remained, but in two weeks the patient was well enough to leave the hospital.

Case II.—A mechanic, while striking iron, received a blow on the eyeball from a fragment of the metal. Sight in the eye was obliterated and the vitreous humor exuded from the wound. He was kept under atropia several days.

The needle of the magnet was introduced into the vitreous chamber under bromide of ethyl anæsthesia, but came away without anything. Pain, congestion and blood extravasation continuing, the eyeball was enucleated. The interior of the ball was found to be disorganized and a small piece of steel was found imbedded in a fibrinous clot in the vitreous chamber. The explanation of the failure in this case seemed to be that the needle did not approach sufficiently near to act upon the fragment.

Drs. Henry M. Ewing, Balto. Acad. of Med. W. H. Noble, Cecil County Med. Soc., and John T. King, Balto. Med. Ass'n, were admitted as additional delegates.

The gentlemen whose names were previously mentioned as recommended for membership were elected members, as also Drs. A. M. Belt and R. M. Hall, of Baltimore.

SECTION ON MICROSCOPY, MICRO-CHEMISTRY AND SPECTRAL ANALYSIS.

Dr. A. G. Hoen, of Waverly, chairman of this section, made a report, selecting as the subject of his remarks, "Photo-Micrography." Dr. Hoen remarked that hitherto photographing with the microscope has been shrouded in a mystery of difficult chemical and technical manipulations. The necessity of having expensive apparatus, etc., has been the difficulty in the way of the microscopist; who has not the advantages of apparatus offered by a large University or some Government institution. The method Dr. Hoen described is so simple and involves so little expense that it lies within the scope of every physician who possesses a microscope which can be inclined horizontally, and which is supplied with a medium ½ and ¼ inch objective to take good and accurate photo-micrographs of such specimens as come to his hands.

It is necessary that the photo-micrographer should possess the repuisite knowledge and technic to properly prepare his specimens for microscopic examination.

Dr. Hoen finds that tissues as ordinarily cut and stained with carmine or picro-carmine are admirably adapted for photography with the low and medium powers.

All writers advise the use of the objective alone to project the image of the specimen to be photographed on the ground glass for focusing; this necessitates a camera with a long bellows in order that the proper amplification may be obtained by placing the sensitive plate at a distance of 2,3 or 4 feet from the objective. Dr. H. finds that by using the eye-piece in conjunction with the objective as good, if not better results are obtained and with much more compact apparatus.

Dr. Hoen said that as a means of recording microscopic observation nothing is so absolutely true as a good photo-micrograph. He believed this method of recording observations would supercede all others. Pathological histology, which in the past few years has taken so prominent a position, receives another impetus in photo-micrography.

Dr. Hoen showed the various manipulations of the wet process, as far as it was possible to do so. The character of the negatives exhibited, as also that of the prints from them, proved that good work could be done without the use of expensive apparatus, the illumination of the object in this case being effected by an ordinary mirror mounted on movable pivot and fixed to a window-sill having a southern outlook. The use of the blue glass cell was found unnecessary; a ground glass, however, situated on the under side of the aperture in the stage of the microscope was found indispensable, both to ensure an even

illumination and to render the rays of light parallel.

The preparation of the plates, such as collodionizing and sensitizing is so simple that any one who has once seen the process could easily follow. After a proper field has been secured in the microscope ocularly the instrument is placed in connection with the camera and the illumination properly adjusted, the image is sharply focused on the ground glass of the camera. The exposure is now made by withdrawing the dark slide from the plate-holder, and according to the lenses used a longer or shorter time is given. The development conducted in the dark room is secured by a solution of iron and acetic acid.

This process commends itself for its cheapness, twenty five dollars being sufficient to cover the entire cost of camera, chemicals, etc.

BRAIN LOCALIZATION.

Prof. G. Stanley Hall, of the Johns Hopkins University, delivered, at the request of the Executive Committee, a lecture on this subject. Prof. Hall referred to the great changes which had taken place in the last ten years in brain pathology, a result due to the improved methods of study adopted during that period. Much attention had been paid to the process of degeneration, and the examination of the fœtal brain had borne good fruit in showing the method of development of the nerve fibres. Prof. Hall exhibited a skeleton model of the brain just received and made by Abbe of Berne. He referred to the pyramidal tracts, the functions of which, he said, were as well made out as any part of the cerebro-spinal tract. These tracts contain the fibres which preside over the voluntary movements of the arm and leg, especially of the former; destroy them and voluntary movements of the arm and leg are impossible. This is now accepted generally as proven. The fibres in these tracts pass directly to the brain cortex, so that the communication between that and the muscles is direct and not through the basal ganglia as formerly supposed. Hence there is distinct localization for the movement of the limbs.

Hexner (?) of Vienna, has found several hundred cases in which local functional disturbances of the extremities were associated with localized lesions of the brain. These centres, however, are not very well defined, and seem to be subject to variation. It was formerly supposed that the white substance of the brain was made up of fibres going from the basal ganglia to the cortex. It is now known that it is composed of commissural fibres between different parts of the cortex, the character of which is very little made out. It is known that there are more commissural fibres passing from the left side of the brain to the right, than the reverse and they have been actually counted. Of the cerebellum it seems to be thought now that it is essentially a commissure.

VOLUNTARY PAPERS.

"*The Influence of Lung Retractility in Pleurisy and Pneumothorax.*" By F. Donaldson, M. D.

The application of the knowledge acquired by physiological research of the retractile force of the lungs to the investigation of the pathological conditions of the chest has been strangely overlooked, and this has retarded in no small degree, our thorough study of diseases of the chest. Marey, Hutchinson, Salter, Powell, and Le Gros Clarke, contributed to our knowledge of the subject. It was not, however, until 1877 that the amount of lung retractile force was ascertained, or even more than guessed at. Stone, of London, then reported his experiments on sheep, from which he concluded that the retractile power was equal to 4 or 5 inches of water. He also showed that even when the effusion was considerable in the pleural cavity the lung still possessed contractile force sufficient to support 2 inches of water, so that to evacuate the fluid it was necessary to use external suction sufficient to overcome this lung traction. Garland, of Boston, shortly after published his work on "Pneumo-Dynamics," which gave an immense impetus to the study of Dynamics of the chest and explained satisfactorily some conditions especially found in pleurisies.

Previous to 1843 it was taught that effused pleural fluid obeyed the law of gravity as in open vessels or a vacuum, and hence assumed a horizontal level. M. Damoiseau, in 1843, first showed the fallacy of this, and that the line was irregular, with more or less the form of a parabola. With but few exceptions it has since been acknowledged that the line is not horizontal when patient is sitting or standing, unless the fluid fill the cavity up nearly to the clavicle. In 1874 and '76 Dr. Calvin Ellis described the line as beginning low down on the back near vertebræ, passing outward and upward obliquely to the axilla, where it reaches its highest point, then in a straight line with a slight descent to the sternum. This has been confirmed by the author and others, and has been designated as the letter S curve. As the fluid increases the curve flattens out and no longer presents its S shape after the fluid reaches the 2nd rib, but is then nearly horizontal. Garland explained the reason of the above facts and demonstrated that the physical cause of the condition was the retractile force of the lung, aided by the elastic resistance of the thoracic walls and the negative pressure of the liquid.

The author next considered the influence of the retractile lung power in the production of displacements of the heart, lungs, diaphragm, interstitial spaces, liver and spleen, and in the production of pheumothorax.

"*Suicide with Presentation of Mechanical Means of Restraint,*" was the title of a paper read by Dr. J. S. Conrad, Superintendent of Matley Hill Sanitarium.

Dr. Conrad said there were but two methods of restraint. The first was continued watching by day and night; but few could stand the expense of this. The second was the use of gloves. He had more confidence in the second than in the first method. He uses the gloves only at night. The gloves used are a sort of mitten fastened securely around the wrists, and to the extremity of which are attached rings by means of which the hands are securely fastened to a brace going around the waist and over the shoulders. The gloves are perforated in order to obviate unpleasant sweating of the hands.

"*The Result of Operative Measures for Rectal Cancer: Report of Three Cases,*" was the title of a paper read by Dr. L. McL. Tiffany.

Dr. Tiffany had operated five times, three times by left lumbar colotomy, for the relief of suffering and to avert impending death from obstruction; once in the same situation for relief of pain without complete obstruction of the passage of fæcal matter, causing unutterable agony; once the lower rectum with anus was excised for epithelioma. The results of four of these cases are as follows: Case 2 lived fifteen months after operation, twelve of which were rendered tolerable by the diverting of the fæcal discharges through the loin and comparative rest afforded the rectum. Post-mortem showed the rectum for seven inches in its entire circumference to be the seat of an epithelioma, and adherent to neighboring parts. Case 3, left lumbar colotomy, patient survived seventeen months. At time of operation obstruction was complete, and terrific pain accompanied. Immediate relief was secured, which continued until death by asthenia. Case 4, left lumbar colotomy; patient died of pelvic cellulitis after abortion, the fœtus being supposed to have reached the fourth month. Complete obstruction with great suffering preceded the operation. The presence of the fœtus in no wise complicated the colotomy. Case 5, excision of lower rectum and anus, February 27th, 1882. Patient is still living. At last examination, November, 1883, no sign of recurrence, and rectum seemed in all respects healthy, and there was no incontinence of fæces. The last-named result seemed due to partial prolapse of the mucous membrane of the anterior rectal wall, forming a fold which closed the anal aperture. There was no untimely escape of gas. The failure to recur justifies the hope that an absolute cure may be obtained.

"*Common Sassafras a Potent Drug and a Dangerous Narcotic.*" By C. G. Hill, M. D. Dr. H's attention was called to the narcotic properties of this hitherto supposed harmless agent by a case in which a boy took two large swallows from a bottle containing the oil of sassafras, under the impression that it was good for an eruption from which he suffered. Coma supervened resembling that in poisoning by opium, except that pulse was rapid and pupils normal. Prompt emesis removed the remaining oil, restoring consciousness. The author had made experiments with oil of sassafras on live animals as mice, cats and dogs. It produced convulsions, insensibility and paralysis. Dr. Hill also ascribed strong antiseptic properties to the oil of sassafras.

"*Cases of Reflex Cough due to Nasal Polypi, with Remarks.*" By John N. Mackenzie, M. D.

Author referred to a paper by him in which he had called attention to the frequency of reflex cough as a symptom of a number of pathological conditions affecting turbinated bodies of the nose, and especially the erectile tissue overlying the posterior extremity of the inferior turbinated bone. He had insisted on the importance of local treatment in such cases. He now related several cases of reflex cough due to nasal polypi, and which was dissipated by their ablation. Dependence of asthmatic attacks upon nasal polypi is sufficiently common, but the rôle of the latter in producing cough has been apparently overlooked. At the time of publication of his thesis but one case had been recorded; four have come under his notice during the year. It would appear that the cough is present only when the growth springs from or is in contact with the erectile area, and generally with its posterior portion. In other words when the polypus acts as a mechanical irritant it excites reflex action which ends when an explosive cough is produced. The probability therefore of cough excitation will depend upon the position of the growth. Dr. M. has tried to obtain the reflex by direct stimulation of the growth, but so far without success. He observes that the change of position of the polypus does not depend altogether upon the law of gravitation, but in some instances may be due to increase in volume either from local irritation of various

kinds or from the well-known hygroscopic character of the gelatinoid outgrowth. The increase in bulk thus caused would obviously bring it into contact with parts which in its original position would not be encroached upon, and therefore not be subjected to the pressure and irritation which it might occasion. In regard to the mechanism of the reflex two explanations suggest themselves: either the assumption of the correlation of the nasal erectile area, and the interarytenoid space (laryngeal cough centre) by virtue of which irritation and vascular engorgement of the former may lead to hyperæmia of the latter through the medium of the vaso-dilator nerves, through the superior cervical ganglia, and the consequent production of a laryngeal cough; or the direct transmission of the irritation through the spheno-palatine nerves to the medulla and its immediate reflexion outward to the muscles concerned in the expiratory act.

"*Congenital Anomaly of the Fœtal Heart consisting in the Absence of one Segment of the Mitral Valve in which a Systolic Murmur was heard before Birth.*" By Eugene F. Cordell, M. D.

The anomaly in question was found in the autopsy of a new-born child which died cyanotic one hour after birth, respiration having never been thoroughly established. The mitral deficiency was the only abnormality present The anterior segment of the mitral valve was largely developed and was attached by its sides to several chordæ tendinæ, which sprung from two fleshy columns; the latter were connected with the posterior and outer wall of the ventricle. There was no evidence of a pathological origin. For some hours before birth there had been heard in the left upper region of the abdomen a distinct systolic fœtal heart murmur which from its character was presumed to be located at the mitral orifice. The rarity if not the uniqueness of such an abnormality, and the ignorance and obscurity prevailing in reference to such murmurs, were shown by a reference to authorities. The diagnosis will probably always be problematical.

"*On Certain Practical Points in the Pathology, Clinical History and Treatment of Cancer.*" By Geo. H. Rohé, M. D.

Author spoke of the loose way in which the term cancer is used. The invariable anatomical condition is epithelium out of place. This is due to an indefinable constitutional predisposition more marked in the white than black races. Where this predisposition exists local irritation is alone needed to produce the disease. Dr. R. illustrated from his own practice the conversion of innocent epithelial growths into malignant growths. Pain and ulceration may be entirely absent in cancer. Induration is not characteristic if taken alone. Extirpation was urged as the rule. Arsenic, pushed to its physiological limitation to prevent the tendency to epithelial degeneration was recommended.

"*The Maximum Volume of Blood sent out by the Left Ventricle in a Single Beat, and the Influence of Variations in Venous Pressure, Arterial Pressure and Pulse Rate upon the Work Done by the Heart,*" was the title of a paper read by W. H. Howell, Fellow of the Johns Hopkins University and F. Donaldson, Jr., M. D.

The authors undertook to determine this question hitherto unsettled, and according to Foster not to be accurately determined, by directly measuring the blood ejected from the left ventricle of a dog's heart isolated by Prof. Martin's method. The results fall under four heads: 1. The maximum quantity of blood which can be thrown out of the left ventricle at a single systole. The method of working in determining this quantity was to increase the amount of blood flowing into the right side of the heart by raising the supply flasks connected with the superior vena cava until further increase of pressure and quantity of blood flowing into the right side of the heart caused no increase in the quantity of the blood sent out from the left ventricle. The main result of these experiments are as follows: With a mean pulse rate of 180 per minute in the dog, the mean rates of the maximum weight of blood pumped out from the left ventricle at each systole to the body weight is $\frac{1}{865}$ or .00117. The maximum outflow from the left heart was obtained in all cases at or below a venous pressure on the right side of 60 centimes of defibrinated calf's blood (46 millims. of mercury). From one experiment taken at the normal pulse rate of the dog (120 per minute) the ratio under these circumstances is $\frac{1}{700}$ or .0014. Reasons were given for the belief that the left ventricle during life is distended to about its maximum capacity. Owing to the differences in pulse-rate between the dog and man no inference can be safely made from these results to the case of man. 2. Arterial pressure was varied by raising and lowering the end of the outflow tube leading from the aorta. Such variations from 58 to 147 millims. of mercury have practically no effect upon the quantity of blood sent out from the left ventricle, and it seems probable that within these limits at least the force of the ventricular contraction is not influenced by variation in arterial pressure but remains maximal

throughout. 3. Variations of venous pressure showed a marked influence of the latter, the outflow from the left ventricle increasing with it but not proportionately up to the point of maximum work. 4. The rate of beat of the heart was varied in these experiments by heating or cooling the blood supplied to it. In this way the pulse rate was changed in one case from 228 to 77 beats a minute and back again to 140 in a minute; and in another case the variation was equally great. The general result may be stated as follows: A diminution of pulse-rate brought about by lowering the temperature of the blood flowing into the heart causes an increase in the quantity of blood thrown out from the ventricle, and vice versa. The changes in the outflow from the ventricle at each systole are not, however, inversely proportional to the changes in the pulse rate. The total outflow and the total work done during any given period of time decreases with a diminution of pulse-rate, and increases with an increased pulse-rate.

"*Results from the Investigation and Study of Cow-Pox.*" By St. George W. Teackle, M. D.

Referred to a paper read at the meeting of the Society a year ago, entitled, "A Case of Spontaneous Cow Pox, etc ," and the exhibition of a heifer successfully inoculated with crusts therefrom. He reported that he had obtained only negative results from crusts from this heifer. This had led him to investigate the subject, and he had thus arrived at the conclusion that there is no such thing as spontaneous cow-pox, but that cases mistaken for it are constantly occurring, especially during visitations of small-pox, that consequently Jenner was laboring under a delusion, and that a fresh and reliable virus can always be obtained by direct inoculation of the heifer with small-pox virus, whenever this disease exists, and this was a much more convenient and perfect method.

Reviews, Books and Pamphlets.

Brain Exhaustion, with Some Preliminary Considerations on Cerebral Dynamics. By J. Leonard Corning, M. D., Member of the N. Y. Neurological Society, etc., New York. D. Appleton & Co. 1884. Pp. 228.=*Conversations between Drs. Warren and Putnam on the Subject of Medical Ethics.* By Frank Hastings Hamilton, M. D. Bermingham & Co., New York. 1884. Pp. 129.=*Post-Nasal Catarrh and Diseases of the Nose Causing Deafness.* By Edw. Woakes, M. D., Senior Surgeon and Lecturer on Diseases of the Ear, London Hospital, etc. Philadelphia. P. Blakiston, Son & Co. 1884. Pp. 220.=*Elementary Principles of Electro-Therapeutics, Illustrated.* Prepared by C. M. Haynes, M. D. Published by the McIntosh Galvanic and Faradic Battery Co., Chicago, Ill. Price $2.00. Pp. 417.=*Contagious and Infectious Diseases; Measures for their Prevention and Arrest.* By Joseph Jones, M. D., President of the Board of Health of the State of Louisiana. Baton Rouge: Leon Jastremoki, State Printer. 1884. Pp. 410.=*Eczema and its Management.* By L. Duncan Bulkley, A. M. M. D. Second Edition. G. P. Putnam's Sons, New York. 1884. Pp. 334.=*History of the Discovery of the Circulation of the Blood.* By Henry C. Chapman, M. D., Prof. of Institutes of Medicine in Jefferson Medical College. Phila.: P. Blakiston, Son & Co., Phila. 1884. Pp. 56.=*Neurological Specialism.* By W. J. Morton, M. D. New York. Reprint from *Journal of Nervous and Mental Disease*, vol. x, No. iv. Pp. 12.=*Moral (Affective) Insanity—Psychological Sensory Insanity.* By C. H. Hughes, M. D. St. Louis, Mo. Reprint from *The Alienist and Neurologist.* April 1884. Pp. 18. =*Medical Diagnosis with Special Reference to Practical Medicine.* By J. M. Da Costa, M. D., L. L. D. Sixth Edition, Revised. Philadelphia: J. B. Lippincott & Co. 1884. Pp. 947. Price $6.00.=*Notes on the Opium Habit.* By Asa P. Meylert, M. D. New York: G. P. Putnam Sons. 1884. Pp. 36.=*Wurtz's Elements of Chemistry.* Second American Edition. Translated by Wm. H. Greene, M. D. J. B. Lippincott & Co., Phila. 1884. Pp. 755.=*A Manual of Psychological Medicine and Allied Nervous Diseases.* By Edward C. Mann, M. D., of New York. P. Blakiston, Son & Co., Phila. 1883. Pp. 691.

The Physiological Action of Paraldehyde.—At a recent meeting of the Paris *Societe de biologie* ("Gazette hebdomadaire de medecine et de chirurgie," March 21, 1884), M. Henocque gave an account of some of the results of his experiments with this agent on animals. He insisted particularly on the decided reduction of the interchange of material produced by it in the tissues, accompanied by a notable and rapid lowering of the temperature, slowing of the respiration, and diminution of the oxy-hæmoglobin in the blood. These effects, he considers, furnish an explanation of its retarding and even arresting the action of certain poisons, such as nitrate of sodium and strychnine, without the need of supposing that any real antagonism exists between them as has been maintained in the case of stychnine.—*N. Y. Med. Journal.*

Editorial.

THE COLD BATH TREATMENT OF TYPHOID FEVER.—The use of the cold bath in the treatment of typhoid fever has numerous advocates, and is practiced with varying degrees of success by those who have relied upon this method of reducing temperature. The results obtained by different authorities and the wide differences in the estimates placed upon the value of this method of treatment invest the subject with a practical interest. In a recent paper read upon this subject before the Medical Society of London (*Med. Times and Gaz.*, March 8th) Dr. Samuel West presents many practical suggestions worthy of careful consideration. Dr. West directs attention to two points. He discusses first the doctrine of fever, upon which this method of treatment is based, and takes occasion to criticise the theory of Liebermeister that the temperature is practically the cause of the symptoms of fever, and of the dangers which arise in it, in so far as this statement is applicable to typhoid fever. In England, he says, the dangers of typhoid fever do not vary in direct proportion to the height of the temperature. Numerous cases with high temperature recover, and many with low temperature die, a statement which will no doubt apply to all countries, certainly to this. Other dangers, irrespective of high temperature, prevail in this disease, and these must be considered in estimating the influence of temperature as a cause of death. Dr. West does not deny that high temperature may be in itself a source of danger, but such cases belong to the general group of hyperpyrexiæ, a state which may arise under so many divers conditions that it is difficult to find a factor common to them all. Dr. West claims that the theory of fever as often assumed by the chief advocates of the cold bath method of treatment is one which is, in all probability, insufficient, and therefore the treatment based upon this theory will be probably also found insufficient.

The second point considered has reference to the statistics which have been published on typhoid fever, and the value of the conclusions drawn from them. Lengthy tables are presented and the unreliability of comparative statistics fully demonstrated. Dr. West ventures the opinion that the statistical method is not applicable to the solution of the problem. Statistics do not take into consideration the complexity of disturbing causes, and do not make adequate allowance for accidental circumstances which may occur quite irrespective of the method of treatment. He believes that this question must be solved by individual experience, and not by statistics.

The most interesting and valuable part of Dr. West's paper we will now present. To emphasize the value of individual experience, Dr. West has elicited the opinion, of the physicians of St. Bartholomew's Hospital, who respond in writing.

Dr. Andrew did not use the bath in any ordinary case of typhoid fever in which the temperature did not rise above 105°. "There are also gentle means of reducing the temperature in fever, the early employment of which may prevent the necessity for the bath arising, e. g. attenton to the temperature of the sick room, diminishing the amount of bed-clothes, and especially by the use of cradles preventing the bedclothes being in actual contact with the body."

Dr. Church had made pretty frequent use of the cold bath, but he did not feel sure of the propriety of using it as a routine instrument for typhoid. To give every patient a cold bath as often as the temperature rises to 102° is unnecessarily fatiguing to both patient and attendants. Whenever the temperature has remained for 24 hours or so persistently at or about 104°, he has repeated the bath three times in 24 hours with decided benefit. "Cold sponging, which is almost invariably grateful to the feelings of the patient, is constantly used, though it appears to me to have but a transient effect on the temperature. All my patients are kept very lightly covered with bedclothes."

Dr. Gee writes that his febrifuge treatment is no more than to let the patient lie as lightly clad as possible. "Sometimes, but seldom, if the fever rise very high, they are sponged with lukewarm water once a day, or oftener if need be."

Dr. Southey says, "any bathing is good in the first two weeks, cold or tepid, but the baths are after a short time succeded by an elevation of temperature, unless protracted so as to require warmth and stimulants. Indeed, when I used cold baths, longer than mere dips, I doubted their being so efficacious in lowering temperature as tepid baths taken at 95°, and protracted for 15–25 minutes, or until the patient shivered."

Dr. Duckworth says: the cold-bath treatment of typhoid fever has now become almost obsolete with him. He remarks that in the treatment of any disease he regards it as always essential to make a distinction between treating the malady and treating the patient. He draws a clear distinction between what he calls ordinary cases of well-marked typhoid fever, and those in which hyperpyrexia occurs. He considers that a temperature of 105° indicates the beginning of hyperpyrexia. Below that he does not consider a case hyperpyretic. He is satisfied it is unnecessary to employ the cold bath for cases which are not hyperpyretic. He regards cold bathing as a most valuable therapeutic agent in true hyperpyrexia however induced.

It appears from the opinions expressed that the modified cold water treatment is most in favor at St. Bartholomew's Hospital, and with this experience Dr. West is in entire accord since he is not able to reconcile the enthusiastic statements of the advocates of cold-bathing with his own observation and experience. In Dr. West's opinion when the temperature does not rise above 102°, or probably 103°, the cold-bath, if it does no harm does at any rate no good, and is therefore unnecessary.

The conclusions reached by Dr. West in his most instructive paper are worthy of additional statement:

1. That the thorough cold-water treatment of typhoid fever is based upon what appears to be a one-sided view of the process of fever.

2. That the question is one which cannot be satisfactorily determined by statistics.

3. That a general opinion has gradually developed, which, whatever statistics may appear to prove, cannot be disregarded against the indiscriminate use of bathing, and in favor of its use in appropriate cases.

4. That, while not denying that in hyperpyretic cases cold-bathing is the most valuable of the known methods of treatment, in the less severe cases it stands only on the same level as many other antipyretics.

5. That the success of the treatment depends chiefly upon the clinical skill which recognises the proper circumstances for its use.

Lectures for Nurses.—The Faculty of the Woman's Medical College of Baltimore announce that there will be delivered under the auspices of that institution, commencing May 5th, a six weeks' course of lectures for nurses. There will be seven lecturers, all members of the faculty, each of whom will deliver one lecture a week. The subjects chosen include Duties of Nurses in Special Cases, Bandaging and Dressing of Wounds, Care of Mother and Child, Surgical and Medical Emergencies, Administration of Drugs, Care of the Sick and Invalids, Care of Children, and Physiology in Daily Life. These subjects are of a thoroughly practical character, and cannot fail to impart much useful information to those who attend them, and fit them better for the work in which they are engaged. It is of course desirable that the opportunities afforded by a large general hospital should be available in connection with such instruction; this is not at present possible in this city, but even without it a theoretical course such as is contemplated, will not be without great utility in elevating the standard of qualifications of our nurses. It is hoped that these lectures will also be availed of by ladies generally, especially those having charge of households. Nursing is a duty devolving frequently upon every woman, and a knowledge of measures to be taken in various cases of emergency, even though of a very rudimentary kind, may be the means of saving the lives of some who are very near and dear.

In instituting this work the Faculty of the Woman's Medical College are but carrying out the plan upon which their institution was based, for in the act of incorporation dated February 24th, 1882, they are authorized to institute and conduct a "Training School for Nurses."

The fees for the ensuing course have been placed at a very low figure in order to encourage nurses to avail themselves of it, and one or more tickets may be taken at the option of the applicant.

Miscellany.

Veratria in the Pruritus of Women.—All acquainted with the incessant suffering which some women undergo from pruritus at the period of the menopause, must be very desirous of being made acquainted with a prompt remedy for so distressing an affection. Whether it arise from the presence of prurigo, urticaria, eczema, herpes, or whether it exist without any eruption at all, it is alike difficult to allay, as the great number of remedies which have been proposed testifies. Of these veratria is by far the most efficacious. When the pruritus is localized at the groins, arm-pits, walls of the abdomen, or behind

the ears, gentle friction night and morning with an ointment, consisting of thirty parts of lard and a quarter of a part of veratria, usually gives relief. When the pruritus is generalised, the internal administration of the veratria is preferable. Two centigrammes should be made into ten pills with liquorice powder, of which from two to six should be taken daily, either half an hour before, or three hours after meals. Only one should be taken at a time, an additional one being given each successive day until the maximum of six (three milligrammes) is attained.—Dr. Chèvon, *Le Progres Medical*, Feb. 23.

Rheumatism in Children.—In the discussion on rheumatism held before the Section on Diseases of Children of the British Medical Association (*Brit. Med. Jour.*, Sept. 15, 1883), Dr. T. Barlow read a long and rather elaborate paper upon the various affections associated with rheumatism, including more particularly an account of the cutaneous and sub-cutaneous manifestations and chorea. The latter, it may be noted, he considers to be rather a symptom than a disease. He aims to show how various may be the manifestations of rheumatism in children, and yet how closely these manifestations are related to the typical symptoms of acute rheumatism as seen in adults.

Dr. H. Ashby, in discussing twelve cases of rheumatoid trouble following scarlatina, denies the existence of a true rheumatic element in such cases. This he does on the ground of the lightness of the joint affection, the absence of cardiac complications, the presence of pyæmic symptoms in two cases, and the regularity with which the articular trouble appeared at the end of the first week.

Dr. E. Rickards, in discussing the relations of chorea to rheumatism, thinks that the relation is rather one of association than causation, the chorea being dependent rather upon the depressant effects of rheumatism than upon any specific influence exerted by the latter.

Dr. J. S. Bury, on the other hand, is rather disposed to assert the more intimate relation of the two diseases.

The discussion of these papers brought out the fact that wide differences of opinion still exist among English physicians, at least, as to the relation of rheumatism to scarlatina on the one hand, and to chorea, cardiac disease, and cutaneous affections on the other. The central nervous origin of these various related affections was held probable by at least one of the speakers.

Lithicated Hydrangea in Rheumatism and Vesical Irritation.—Dr. Samuel Hales, of Paces, Va., reports the following cases:

Case 1.—Wm. McN., aged 45, has complained of a dull, aching and very distressing sensation in the hypogastric region for eighteen years; had been treated for dyspepsia and chronic gastritis. Finally, owing to its barometrical recurrence, I treated it as rheumatic with the various standard remedies, such as the salycilates, salycilic acid, colchicum, etc., with indifferent results. The pains becoming exceedingly severe and nothing seeming to even palliate, I was about to advise lithia, when the possible adaptability of the compound lithiated hydrangea (Lambert's) suggested itself. Teaspoonful doses of this preparation were given every three hours, improvement was shortly manifested, and rapidly increased, resulting in entire relief in two weeks to the infinite gratification of the patient. There has has been no return of the disease.

Case 2.—Capt. A. K., aged 94, taken three weeks since with cystitis, spasmodic stricture of the uretra very severe; forced to use bougies before catheter to relieve him of urine two or three times daily; spasms were easily excited, and constant effort to urinate. I ordered lithia hydrangea every three hours, the spasms gradually receded and now he passes nearly enough water without the catheter. Only as a matter of caution do I now use it; the instrument glides in without a single spasmodic obstruction, and indeed he introduces it himself with ease, although for two weeks previous to the use of the lithiated hydrangea, it had been very difficult to pass the stricture without much time and patience with even the best known instruments.

In other cases of rheumatism, in which of course there was a predominance of uric acid, lithiated hydrangea has given me the same good results, and both from theory and practice, I consider it a very important new remedy, destined to give general satisfaction.

THE ETIOLOGY OF PHTHISIS.—In concluding the Lumleian Lectures; recently delivered before the Royal College of Physicians, Dr. J. Andrew, the lecturer, summed up the following arguments with respect to the etiology of phthisis, with special reference to its contagiousness:

1. The historico-geographical argument is insufficient to prove that the present distribution of phthisis has been brought by the carriage along lines of human intercourse of a special morbific germ. Indeed, many of the facts under this head are distinctly antagonistic to any such theory.

2. Before the discovery of the bacillus, one and all of the reputed causes of phthisis were inadequate to account for its distribution, or for the anatomical and clinical characters of the disease.

3. That these causes, even those among them, which appeared to act as exciting causes, were all predisposing causes only.

4. That from the nature of these predisposing causes, their relation to each other, and the conditions under which their influence seemed to make itself felt, it was a probable inference that phthisis belonged to the group of specific febrile diseases, and that this view was held by some writers in the face of many difficulties and perplexities.

5. That the facts on which this inference was based were insufficient to prove that phthisis was personally contagious, and were, indeed, opposed to any such notion.

6. That the discovery of the bacillus proved that phthisis was a specific febrile disease, and that the question of contagion cannot now be usefully discussed without acknowledging this fact.

7. That as some specific febrile diseases are contagious, and others are not so, this property existing in very different degrees and modes, in different members of the group, the question as to the contagiousness of phthisis can only be satisfactorily answered by direct evidence of its contagiousness, and by determining its affinities with other members of the group.

8. That although phthisis may be undoubtedly produced in many ways experimentally in animals and also probably in man, there is not sufficient evidence to prove that its prevalence is materially affected by direct contagion.

9. That in many most important respects it very closely resembles ague.

10. That it is at least highly probable that the exciting cause of phthisis, like that of ague, be it the bacillus or some other micro-organism, is in no way dependent upon man for its existence, and is widely diffused irrespective of human agency.

"From these facts," said Dr. Andrew, "I may be allowed to make one short practical deduction, viz., that the prevention of phthisis, like that of ague, is to be attained by sanitary works especially of improved ventilation and drainage, and not by isolation. And that for its cure, as we should not send a case of ague to the Pontine marshes, so, too, it would be wise not to send a case of tubercular disease to any place where the death rate from phthisis is high among the native population."

THE SECRETION OF SUGAR OF MILK.—Struck by the very large quantity of glucose which the mammary gland secretes at the period of lactation, it occurred to Prof. Paul Bert to investigate the source of this saccharine product. In order to solve the problem, he has been engaged since 1878 in the performance of several experiments, the first results of which he has at length laid before the Academy of Sciences. The experiments consisted in the removal of the mammary glands prior to parturition, or even prior to fecundation, in guinea-pigs, and afterwards in goats. On the 22nd of March, a goat having brought forth young under such conditions, it was found that she immediately became the subject of glycosuria, to a great amount, this lasting only for ten days. This fact gives us a right to conclude that the sugar of milk secreted by the mammary gland during lactation, is furnished by the entire economy and, according to the strongest probability, chiefly by the liver. This last point Prof. Bert proposes to investigate, and communicate the result to the Academy.—*Med. Times and Gaz.*

MERCURY IN THE TREATMENT OF SYPHILIS.—At a recent meeting of the Philadelphia County Medical Society, in a discussion that followed the reading of a paper by Dr. John Ashhurst, Jr., Dr. John V. Shoemaker said that the use of mercury by the mouth, as recommended by the speaker, would not answer in all cases. In some the alimentary canal would not tolerate the drug, particularly in debilitated and broken down persons. In others the mercury at times failed to make any impression, and in such instances it often passed out of the body with the secretions. He recalled a case of secondary syphilis in which he administered for several months, first the protiodide, and afterward the corrosive chloride of mercury, both in small and in large doses, without making the least impression. In this instance he afterward treated the patient by the use of the corrosive chloride of mercury hypodermically, injecting one-tenth of a grain, dissolved in water, deep into the subcutaneous cellular tissue, and a cure followed within a few weeks. For the

past three or four years he had followed, to a large extent, this plan of treatment with good results, and had never seen any unpleasant consequences. If the needle was in good condition, a gold one being preferable, and the operator inserted it deep into the cellular tissue, either in the superior or inferior scapular or the sacral region, abscesses would not follow. The eczematous condition of the skin that sometimes followed the inunction method of treatment, referred to by Dr. Ashhurst, could very often be avoided by using, before the inunction of the mercury, a hot-air or steam bath. At the Philadelphia Hospital for Skin Diseases he always preceded the inunction with either one or the other form of bath alluded to; it caused the ointment to be absorbed better, and thus prevented the irritation to the skin.

Death of Dr. J. Robt. Ward.—Dr. Jas. Robt. Ward, the president of the Maryland State Board of Health, and a highly esteemed physician, died at his residence in Govanstown, on the 29th inst., after a brief illness; at the age of 77 yrs. Dr. Ward, early in life, was in the service of the U. S. Navy, where he enjoyed a large experience. He was a gentleman of high character and attainments and a most useful citizen and physician.

Supra-Orbital Neuralgia Treated by Trephining.—Mr. Durham related, before the Clinical Society of London, a case of neuralgia induced by an injury received upon the forehead. An immense number of drugs had been tried, but without avail. The pain was brought on very readily, almost any cause led to an exacerbation, The pain started internally to the scar which appeared healthy. It was doubtful if there was any swelling of the bone. He cut down upon and removed a portion of the supra-orbital nerve, stretching both the ends thoroughly. The pain returned one day later. In six weeks time he operated again, dissecting out and cutting away many of the branches of the nerve and pulling on their ends. The pain was not relieved, and the patient then fixed on a spot in the bone as the seat of the pain. A month later he was trephined at this spot, a piece of bone, an inch in diameter, being removed; there was no thickening of the bone and no sign of past inflammation or suppuration or fracture; there was a little depression on the inner surface of the bone, but nothing had been noticed to have occupied this region during the operation. Since the operation there had been no recurrence of the pain, and his recovery was complete. It would have been more satisfactory if the cause of the pain had been recognized. He was inclined to class the case as belonging to "osteitis neuralgica," but in that affection the long bones were the ones that usually suffered, and they were almost always thickened or indurated, sometimes even eburnated. The little pit to which he had drawn attention was such as was commonly seen in adult skulls. He had no wish in bringing this case forwarld to be understood to advocate this treatment in ordinary cases.

The Second Annual Commencement of the Woman's Medical College of Baltimore, was held at Lehman's Hall, in this city, on Friday, May 2nd, at 12 o'clock M. The degree of M. D. was conferred upon five graduates as follows: M. Elida English, of Maryland; Emily W. Fifield, of Nebraska; Hattie B. Jones, of W. Va.; Mayne M. Pile, of Penna.; and Gertrude Scott, of Virginia. The first honor, a gold medal, was awarded by the Faculty to Mayne M. Pile, and the second honor to Hattie B. Jones.

The award of prize was made by Prof. John S. Lynch, and the valedictory address was delivered by the Rev. Thomas D. Anderson, of this city.

Professorship of Pathology, Johns Hopkins University. — Dr. William H. Welch, a graduate in arts of Yale College, and in Medicine of the College of Physicians and Surgeons in New York, has been appointed Professor of Pathology in the medical faculty of this University. Dr. Welch is now Professor of Pathological Anatomy and General Pathology in the Bellevue Hospital Medical College of New York, and has given evidence of his ability as an independent investigator, and as a skillful teacher.—*University Circular*, April, 1884,

A Peculiar Case.—Several days after a woman's burial, says the *Br. Med. Jl.*, it was concluded to hold a post-mortem. While opening the lid the coffin burst with a loud noise, one of the boards striking the police inspector and knocking him down. The medical officer in attendance fainted, and remained unconscious for some time, and has since died. Another physician in attendance is lying seriously ill.

Medical Items.

Mr. John Jacob Astor, of New York, has given $200,000 to the N. Y. Cancer Hospital, which assures the success of this institution which is the first hospital founded exciusively for cancer patients in this country.=Dr. W. H. O. Sankey calls attention again to the use of carbonate of iron in the treatment of pertus-

sis. He administers the drug in cakes and claims superior results from its use. He gives a grain for each year, up to six years old, every three or four hours.=The British Parliament has refused to pass the bill to license crematories.=There are said to be twelve medical journals published in Japan.=Dr. James B. McCaw has resigned the Chair of Practice; Dr. M. L. James that of Materia Medica and Therapeutics, and Dr. C. Tompkins that of Anatomy in the Medical College of Virginia. This institution is virtually without a Faculty. =Dr. Chas. T. Hunter, a prominent physician and a demonstrator of anatomy in the University of Pennsylvania, died on April 27th, with septicæmia, the result of a dissecting room cut inflicted upon one of his fingers. =The thirteenth annual meeting of the Rocky Mountain Medical Association will be held in Washington City, on Wednesday evening, May 7th, at 8 o'clock. The annual address will be delivered by the President, Dr. J. F. Hibberd, of Richmond, Indiana.=The Florida State Medical Association will hold its annual meeting in the city of Jacksonville, on Wednesday, June 4th, 1884.=A new medical Society has recentiy been started in Washington, D. C., under the name of the Medico-Chirurgical Society of the District of Columbia. Dr. Robert Reyburn is President.=The Michigan State Board of Health has approved of Martin's "Human Body" as a text book on physiology for use in schools.=Le Blond and Fissiâux recommend resorcin for chancroids in woman. It acts more quickly than iodoform and has not such a disagreeable odor; it may be used in powder or in 25 per cent. solution.=The round trip to Washington from Baltimore to all delegates to the Amer. Med. Association will be $1.65. Tickets can be obtained at these prices at any of the offices of the B. & O. or B. & P. R. Roads on presentation of credentials.="In Richmond, Va.," says the *Southern Clinic*, "there are now three medical journals and five medical editors; and all of the editors are on good terms with each other; speak courteously to and of each other, and seem determined to set an example of brotherly love for a number of medical cutthroats now infesting this place."=A movement is on foot to establish a hospital for children in St. Louis.=An apparatus for lighting doctor's gigs or broughams by electricity has been successfully used in England. The Swan light is used and a portable battery.=Prof. Virchow recently showed to the Berlin Medical Society photographs of a gigantic tree in the island of Cos, under the shade of which Hippocrates is said, by tradition, to have held medical consultations.=Two more deaths from foot-ball are reported from England, both from injury to the spinal cord. =Prof. Willard Parker, of New York, is in very low health and is losing ground rapidly. He is now quite advanced in years and his death may be expected at any day.=Surgeons in the U. S. Army, holding the rank of Colonel, will hereafter be styled Assistant Surgeons-General, and those with the rank of Lieutenant-Colonel, Deputy Surgeons-General.=A remonstrance has been laid before the Massachusetts Legislature against any change in the present law relating to the adulteration of drugs.=The second edition of Dr. Morell Mackenzie's work on Diseases of the Throat and Nose, will be delayed in its publication by a recent fire at Messrs. Pardon's, the publishers.=The seventh award of the Riberi Prize of 20,000 lire ($4,000) will have as its subject, "Embryological Researches with especial regard to the Anatomy, Physiology and Pathology of Man." All competing works or essays must be delivered at the Academy before the 31st of December, 1886.=Drs. Christopher Johnston Sr. and Jr., and H. P. C. Wilson, have been appointed delegates from the Med. and Chir. Faculty of Md., to the International Medical Congress at Copenhagen.

CHANGES IN THE MEDICAL CORPS OF THE U. S. ARMY for the week ending April 28th, 1884:

Hoff, John Van R., Captain and Assistant Surgeon, to be relieved from duty at Alcatraz Island, Cal., and to report to the commanding officer at Fort Mason, Cal., for duty as post surgeon.

Barrows, C. C., First Lieutenant and Asst. Surgeon, relieved from duty at Fort Grant, A. T., and ordered to report for duty at Whipple Barracks, A. T., relieving First Lieutenant, W. E. Hopkins, Asst. Surgeon, who, upon being relieved will report for duty as post surgeon at Fort Grant, A. T.

CHANGES IN THE STATIONS AND DUTIES OF THE OFFICERS SERVING IN THE MEDICAL DEPARTMENT U. S. NAVY, from April 21st, 1884, to April 26th, 1884:

Passed Assistant Surgeon, C. T. Hibbett, ordered to U. S. iron clads, James River, Va.

Passed Assistant Surgeon, H. Aulick, detached from iron clads and ordered to New Hampshire.

Passed Assistant Surgeon, W. S. Dixon, detached from "Hartford" and ordered to coast survey steamer, "Hassler."

Passed Assistant Surgeon, F. H. Terrill, detached from "Hassler" and ordered to "Hartford."

Surgeon, J. C. Wise, detached from "New Hampshire" and placed on waiting orders.

Medical Inspector, W. K. Schofield, appointed Medical Inspector on active list.

Passed Assistant Surgeon, F. S. Nash, detached from Laboratory and ordered to "Alert." (Greely Relief Expedition.)

Passed Assistant Surgeon, J. H. Hall, ordered before Retiring Board.

Medical Inspector, H. C. Nelson, placed on Retired List.

Passed Assistant Surgeon, S. W. Battle, placed on Retired List.

Passed Assistant Surgeon, F. H. Terrill, resigned.

Passed Assistant Surgeon, J. M. Murray, ordered to "Minnesota."

Original Papers.

HISTORY OF A CASE OF PERI-HEPATIC ABSCESS.*

BY EDWARD T. BRUEN, M. D.,

Physician to the Philadelphia Hospital, Demonstrator of Clinical Medicine in the University of Pennsylvania.

The accompanying specimen exhibits an abscess which has occurred between the diaphragm and the liver. The abscess contained nearly a pint of laudable pus. The superior wall of the abscess was the diaphragm, and the inferior the perihepatic capsule; the hepatic substance was not involved; indeed, the liver was normal. There were evidences of catarrhal inflammation in the colon, and one or two nearly cicatrized ulcers. The only other lesion in the body was found in the right pleural cavity, the lower portion of which was obliterated by inflammatory adhesions.

The clinical diagnosis presented some interesting features.

The patient, a young man, æt. 28, was admitted to the Philadelphia Hospital November 30, 1883. His previous history indicated that he had suffered from an attack of dysenteric diarrhœa four weeks before his admission, although he had convalesced from this attack. He was evidently much emaciated. The temperature until December 8th ranged from 100° to 102°; from December 14th, from 99° to 101°, after which it never rose above 99⅘° in the evening, and was always 98° in the morning; this continued until the fatal termination of the case on the 20th inst. The pulse was usually above 100. There was occasional sweating; no chills. Extreme tenderness was felt over the hepatic region, associated with pain during the first ten days; the hepatic dulness extending four inches in the nipple line, and about five inches in the axillary region. Physical examination of the chest upon the right side revealed the evidences of a dry pleurisy; there was some cough, which was dry and hard, but not very annoying. Appetite and digestion were fairly good. Urine normal.

The diagnosis of hepatic abscess was made during the first week, chiefly because the symptoms of hepatic lesion, already detailed, were antedated by dysenteric diarrhœa. The pleural lesion was regarded as a secondary inflammatory process engendered by hepatic disease. On December 10th all symptoms of pain and tenderness had vanished; the patient's strength, appetite, and general condition markedly improved; the temperature had fallen to 99°, so that the diagnosis was revised to that of perihepatitis. From December 10th the improvement continued until the 20th, when, after an attack of vomiting, the patient suddenly died.

The autopsy appeared to prove that the inflammation which resulted in the formation of the abscess was primary in the pleura; and the secondary irritation developed the local peritoneal process.

The symptoms of abscess in the hepatic substance are frequently latent. I recall one instance of a patient admitted October 9, 1877, who walked to the hospital and remained under treatment until the 15th, suffering from apparent remittent fever. The day of his death he rose, in the absence of the nurse, and walked down stairs to smoke a pipe; that afternoon he had a hemorrhage from the bowels and died. The temperature of this patient was between 99° and 101°, and the clinical diagnosis was remittent fever, or typhoid of the variety called ambulatorius. The autopsy revealed an abscess about the size of a fœtal head, occupying the convexity of the right lobe of the liver.

In the case I have reported this evening, the subsidence of pain and tenderness, and the temporary improvement of the patient, certainly misled me. Under similar circumstances, I should certainly introduce an aspirator, as I was inclined to do in the beginning of this case, because I am satisfied that the healthy liver can be punctured by a fine needle without damage, whereas either a hepatic or peri-hepatic abscess may at any time prove fatal by rupture.

Finally, if my explanation of the etiology of this abscess is correct, the case is interesting, as showing the relation of pleurisy to serious perihepatitis.

*Read before the College of Physicians of Philadelphia April 2nd, 1884.

MALIGNANT PUSTULE.*

BY W. S. JANNEY, M. D.

My remarks to-night will be on the clinical history of four cases of malignant pustule, which have come under my observation at various times during thirty years of practice.

The synonyms of malignant pustule, as given by various authors, are: Contagious carbuncle, malignant carbuncle, anthrax and charbon; other names are used to designate the more diffused and general forms of the disease.

It is defined to be a specific contagious disease, communicated to man from disease of horned cattle, horses, sheep, and other herbivora, and known as splenic fever, and due to the presence in the system of the bacillus anthracis of Cohn, or bacteridium of Davaine. The local or external form of the affection, malignant pustule proper, is a carbunculous swelling having specific characters, attended with more or less intense surrounding inflammatory œdema; constitutional symptoms may be slight or severe, and the disease is often fatal.

The symptoms and course of malignant pustule vary greatly with the form of disease. Authors describe at least three distinct forms:

First: Malignant pustule or carbuncle proper, the form from which the names of charbon and anthrax are derived; usually it occurs as a primary lesion due to direct inoculation; the seat is either on the face, neck, hands or arms, those parts most exposed to inoculation.

Second: Malignant anthrax, œdema, without definite pustule, corresponds in the main with malignant pustule proper. The eyelids are the parts most frequently affected, but it may occur elsewhere.

Third: Internal anthrax; differs greatly from external, and may be general, having no special lesion or accompanied by local affection; usually pulmonary or gastro-intestinal.

The cases that I wish to report to-night come under the form of malignant pustule proper.

Mr. H., residing in Hopewell township, Mercer county, N. J., a farmer, aged 60; previous to the attack general health good. On the morning of September 20, 1866, Mr. H. noticed a small pimple on his right cheek, immediately over the infra-orbital foramen. During the day it was slightly painful, and during the night the apex became vesicular, with great itching and burning, which continued to increase until the following morning, when I first saw him. The face presented the following appearance: a small pustule, one-eighth inch in diameter, situated as above stated, with a denuded apex of a dark brown color, and an areola of one-half inch in diameter, of a dark red color, surrounding the base of the pustule, and not sensitive to touch; pulse 78, respiration 20, tongue slightly coated and bowels constipated. During the day the temperature increased. Pulse in the evening 100, respiration 22. Side of face up to this time had become very much swollen, with red streaks extending to the neck; slightly delirious; tongue dry. Free crucial incisions were made in the pustule. Delirious through the night of the 21st. On the morning of the 23d, respiration was 30, pulse 130, tongue brown and dry; the cheek of dark gangrenous color, extending to the lower margin of lower jaw and also backward, involving the parotid region and right ear, to near the posterior median line of the neck. Dark red streaks extending over the shoulder to the right arm; patient becoming rapidly comatose and died at 2 P. M. on the 23d; being fifty-eight hours after first noticing pimple on his face. The inflammation and œdema did not extend over the median line of the face or back of the neck.

The second case that came under my care was:—

Mrs. R., residing at her country seat in the suburbs of this city; 32 years of age; married; the mother of three healthy children, and of previous good health. She noticed, September 17, 1876, a small pimple on the right side of the face, one-half inch below the lower lip, and slightly to the right of the median line. From her description of how it commenced, she informed me that her first intimation of anything being the mater was a persistent itching sensation, and on rubbing it she felt a small circumscribed induration, which was in the skin, and was not noticeable. She continued rubbing it to allay the itching; in a few hours she noticed a slight elevation of the skin, conical in form, and the size of an

*Read before the Philadelphia County Medical Society, April 9, 1884.

ordinary pin-head, which increased during the day. Slept well during the night, and on the following morning, the 18th, she noticed the papule had increased in size, and was vesicular, containing a dark colored fluid. The itching continued, and on rubbing it she ruptured the vesicle, and from that time she had a burning, itching pain in the pustule. I saw Mrs. R. on the morning of the 18th of September; she was sitting in her room and did not consider herself sick; had slight headache; was nervous, and spoke of a premonition of impending sickness or calamity. She had an anxious expression; retraction of the eyelids, giving her a staring expression. Tongue slightly coated with a light yellow coat; temperature 99, respiration normal, pulse 80; constipated, and urine scanty; on her face, half inch below the right side of the lower lip, and half inch to the right of the median line, was a pustule of the size of a split pea, with an indurated base half an inch in diameter, of a dark red color. The apex of the pustule was denuded of cuticle, and of a dark brown color, not sensitive to pressure; no lines or streaks of inflammation extending from the pustule; no œdema of face. On the evening of the 18th temperature was 100, pulse 110, respiration 22; tongue coated and dry; streaks or lines of a dark red color, extending from the right side of pustule in a line of the inferior maxilla, curving upwards towards the right ear; right half of lower lip swollen, and of a dark red color, which, on pressure, imparted a nodulated condition; dark red streaks extending from the lip, curving upwards to the integument over the malar process. The skin and underlying tissues between the base of the pustule and the indurated lip, retained their normal color and consistence.

Complained of severe lancinating pain over right half of face and shoulder. Morning of the 19th, temperature 101½, pulse 124, respiration 24; tongue dry; sordes on teeth; the areola around the pustule not so red; no discharge from pustule; dry and dark in color. The lower right half of lip showing dark gangrenous patches; right half of upper lip swollen, of a dark purple color, hard and nodulated. The right half of the face, forehead and right ear swollen, œdematous, and of a mahogany color. The right side of neck swollen, with red streaks extending to the shoulder and arm. Complains of lancinating pains in right arm, forearm and hand; also of scalp.

I saw her again on the evening of the 19th, when all of the above symptoms were aggravated. The right half of the face and right half of forehead, scalp, neck and arm presented the appearance of rapid extension of gangrene. The lower half of right lip completely gangrenous; upper lip also. The fauces tonsils and pharynx not affected; lancinating pains in right mammary region, abdomen, and lower extremities. There was no redness, œdema, or other indications of the disease extending to the mammary region, abdomen, or right lower extremity. Skin normal in color; the slightest touch of the integument over the right side of the thorax, thigh and leg produced the most excruciating pain, and not upon the left; became comatose during the night of the 19th. On the morning of the 20th, gangrene had extended during the night to the shoulder and arm, as far as the elbow, and to the median line of the neck posteriorly; had stertorous breathing, temperature 108, respiration 30; died at 12 o'clock, 72 hours after she had first noticed the papule.

The third case:—

Mrs. H., residing in this city; was called to see her October 20, 1878; 30 years of age, and of previous good health; mother of five children. Found her dying. She had been under the treatment of another physician. The history of the case was obtained from her husband; four days previous to her death she noticed a small papule on the right side of her chin; on the following night the lower lip began to swell, extending to the median line, and next day involving the right half of the upper lip and extending over the left side of the face; complained of lancinating pain over right side of face, head and neck; was five months pregnant, aborted on the third day, became comatose on the night of the third day, and died on the morning of the fourth day. When I saw the case, the lower and upper right half of the lips were gangrenous; between the pustule and lower lip an area of healthy tissue intervened, similar to case second.

The fourth case occurred in this city:—

Mr. P., residing at 2140 Park Avenue, a wool merchant, æt. 24, and of previous good health, who had been in Colorado, purchasing wool, returned from Colorado, October, consulted me October 3, 1883, for

a cough, the result of a cold. On examination I observed on the face, one inch below the right half of the lower lip, near the median line, a small papule, not larger than a small pea, with an areola half an inch in diameter, of a pale pink color; I directed his attention to it, and he remarked that it was nothing but an ordinary pimple. My experience with the cases reported led me to suspect that it might be the beginning of a malignant pustule. As he had been handling wool in Colorado, I stated my suspicions and asked him to call next morning; incised the papule and applied a fly-blister. He attended to his usual business on the 3d of October, and called at my office on the morning of the 4th; the papule had not increased in size. The areola was of a much darker color, but not increased in area. I removed the vesicated skin from the papule and applied another blister; had headache, temperature 99 and respiration 20. I felt almost convinced that I had to encounter another case of this dreadful disease. By much persuasion he permitted me to incise the pustule freely; was requested to go home, and told that I would see him in the evening.

On the evening of the 4th, temperature 100, pulse 95, respiration 20; no perceptible change in the pustule; red lines extending outward from left side of pustule, curving upwards over the face; lower right half of lip swollen and hard, with a band of hardened tissue extending from the left angle of the mouth outward for two inches; the face œdematous.

Incised the lower lip transversely from the median line to the angle, on the line of junction of the skin and mucous membrane, to the depth of one inch, and applied pure carbolic acid to the wound, also injected pure carbolic acid into the pustule; applied a poultice of flaxseed, tar and tinct. iodine—3 parts of meal, 1 part of tar, 2 dr. of tinct. iodine.

Morning of the 5th, inflammation around pustule less; lower lip more swollen and presenting a gangrenous slough, left half of upper lip swollen and presenting the same appearance as lower lip twelve hours previous. Temperature 101, pulse 115, respiration 22; face more œdematous, and dark red lines extending from the lips upwards and backwards to the zygoma and left orbit. I incised upper lip and applied carbolic acid and poultice; injected carbolic acid into the tissues near the angle of the mouth; applied lint wet with sol. act. lead to the face. Evening of the 5th, temperature 102½, pulse 124, respiration 24; the œdema of the face has not extended beyond the limits in the morning; tissues of upper lip of darker color; lower lip sloughing; pustule and surrounding areola improving in color; slight discharge of pus from pustule.

Morning of the 6th, passed a very restless night. Temperature 102, pulse 120, respiration 20. Tissues of lower and upper lip sloughing; removed with forceps and scissors a great portion of the slough of the lower lip, continued to apply carbolic acid. The œdema and color of the face remained in much the same condition of previous day. Evening of the 6th, temperature 103, pulse 130, respiration 24. No perceptible change in the pustule, lips or face since morning.

Morning of the 7th, temperature 102½, pulse 128, respiration 22, ædema of face diminished, pustule and lips discharging pus. Evening of the 7th, temperature 103⅜ pulse 135, respiration 26: has been chilly during the day, and is in a profuse sweat at 6 P. M.

Morning of the 8th, temperature 102⅜ pulse 126, respiration 22: sloughing of upper lip profuse. Evening, temperature 104, pulse 140, respiration 30.

Morning of the 9th, temperature 103, pulse 138, respiration 28, entire slough of lower lip removed, presenting a healthy granulating surface. Upper lip sloughing; removed from angle of mouth a large slough; face less swollen and less discoloration. Slightly delirious during the previous night. Evening, temperature 105, pulse 142, respiration 30.

Morning of the 10th, temperature 102, pulse 130, respiration 28. Night, temperature 103, pulse 130, respiration 34. Condition of face improved, slough removed from upper lip.

Morning of the 11th, passed a restless night; had slight chill followed by a profuse perspiration; temperature 103⅕, pulse, 140, respiration 28; tongue dry and sordes on teeth; bowels loose; redness and œdema of face rapidly disappearing; the lips presenting healthy granulating surfaces; swelling and fluctuations below the symphysis

of lower jaw; punctured, and half oz. of pus evacuated. Evening, temperature 105, pulse 130, respiration 30.

Morning of the 12th, temperature 102, pulse 130, respiration 28; profuse perspiration through the previous night. Evening, temperature 103⅘, pulse 140, respiration 28.

Morning of the 13th, temperature 100, pulse 106, respiration 24. Swelling with fluctuation over infra-orbital foramen. Punctured, and evacuated one oz. of pus. Evening, temperature 103, pulse 140, respiration 30.

Morning of the 14th, temperature 99, pulse 110, respiration 22. Profuse perspiration, alternating with chilliness during the previous night and day, and complains of pain and soreness of right leg. On examination found an area of dark red color one inch wide and two inches long, situated on the outside of the anterior border of the tibia, at the junction of the middle with the upper third of the bone. Introduced bistoury to the depthof one inch and a half, without reaching pus.

Morning of the 15th, temperature 100⅘, pulse 132, respiration 24; passed an uncomfortable night, had profuse perspiration; wounds of lips improving. Evening, temperature 104, pulse 140, respiration 32.

Morning of the 16th, temperature 103, pulse 140, respiration 30. Severe chill during the night, followed by severe lancinating pain in lower right pleura. The swelling in the leg continued, and a deeper incision extending between the tibia and fibula, giving exit to three ounces of dark-colored pus. Evening, temperature 105, pulse 160, respiration 36.

Morning of the 17th, tempterature 102 3/10 pulse 128, respiration 30; had alternate chilliness and perspiration during the night. The acute pain in the side relieved, with a dull aching dain ensuing; slight cough on full inspiration. Percussion revealed dulness over the lower lobe of right lung. Evening, temperature 104⅘, pulse 140, respiration 36.

Morning of the 18th, temperature 104⅘, pulse 128, respiration 30; expectorates frothy mucus, tinged with blood; continues to have profuse perspiration several times a day, so that his clothing is continually wet.

Morning of the 19th, temperature 101, pulse 126, respiration 28. Expectoration of bloody sputa increased. Perspiration continuing. Abscess in leg discharging unhealthy dark-colored pus. Evening, temperature 103, pulse 132, respiration 32.

Morning of the 20th, temperature 101, pulse 124, respiration 28. Expectoration of a dark brown color. Less dullness on percussion. Abscess still discharging pus of a lighter color. Evening, temperature 103⅘, pulse 132, respiration 30.

Morning of the 21st, temperature 100, pulse 120, respiration 22. Expectoration less and of lighter color. Urine examined; quantity 30 oz. daily, and slightly albuminous. Evening, temperature 102 pulse, 128, respiration 26.

Morning of the 22nd, temperature 101, pulse 124, respiration 26. Expectoration less. Less dulness over lung. Evening temperature 103, pulse 130, respiration 30.

Morning of the 23rd, temperature 99, pulse 120, respiration 24. Evening; temperature 102⅘, pulse 130, respiration 28.

Morning of the 24th, temperature 101, pulse 139, respiration 22 Very little change in the patient's condition for the last two days. Evening, temperature 103⅘, pulse 134, respiration 28.

Morning of the 25th, temperature 99, pulse 120, respiration 22. More air entering right lung. Less cough and expectoration. Otherwise no improvement. Evening, temperature 102⅘, pulse 128, respiration 30.

Morning of the 26th, temperature 99⅘, pulse 120, respiration 22. Evening temperature 105, pulse 136, respiration 30.

Morning of the 27th, temperature 101⅕, pulse 122, respiration 22. Evening, temperature 120⅘, pulse 130, respiration 28.

Morning of the 28th, temperature 99⅘, pulse 124, respiration 24. Less cough and expectoration, and profuse perspiration at intervals of four to six hours. Evening, temperature 103, pulse 132, respiration 30.

Morning of the 29th, temperature 99⅕, pulse 120, respiration 22. With the exception of temperature, the patient appears to be improving. Evening, temperature 103, pulse 130, respiration 24.

Morning of the 30th, temperature 99, pulse 122, respiration 20. Evening, temperature 103, pulse 128, respiration 26.

Morning of the 31st, temperature 99⅕, pulse 120, respiration 20. Evening, temperature 102⅘, pulse 124, respiration 24.

Nov.					
10th	day.	Morning temperature	102	Evening	102
11th	"	"	101 3/5	"	102
12th	"	"	101	"	101 2/5
13th	"	"	101	"	100
14th	"	"	100	"	100 3/5
15th	"	"	100	"	105 1/5
16th	"	"	99	"	101 2/5
17th	"	"	100	"	100
18th	"	"	100	"	101 2/5
19th	"	"	99 2/5	"	101
20th	"	"	99	"	100
21st	"	"	99	"	100 2/5
22d	"	"	100	"	100
23d	"	"	99	"	100
24th	"	"	99½	"	99 4/5
25th	"	"	99	"	100
26th	"	"	99	"	100½
27th	"	"	98½	"	100
28th	"	"	99½	"	100½
29th	"	"	98½	"	100½
30th	"	"	98¾	"	100
Dec.					
1st	day.	Morning temperature	98½	Evening	99½
2d	"	"	99	"	99½
3d	"	"	98½	"	99½
4th	"	"	99½	"	100½
5th	"	"	99	"	100½
6th	"	"	98	"	100
7th	"	"	99	"	100
8th	"	"	99	"	100
9th	"	"	98	"	99½
10th	"	"	98	"	99
11th	"	"	98	"	99½
11th	"	"	98	"	99
13th	"	"	98	"	99
14th	"	"	98½	"	99
15th	"	"	97½	"	99
16th	"	"	98½	"	99
17th	"	"	97½	"	99
18th	"	"	97½	"	99
19th	"	"	97½	"	99
20th	"	"	97½	"	99
21st	"	"	98	"	99½
22d	"	"	98	"	100½
23d	"	"	98	"	99
24th	"	"	97	"	99
25th	"	"	98	"	99
26th	"	"	98½	"	99
27th	"	"	98½	"	99
28th	"	"	96½	"	98½

On the night of November 1st he had a severe chill, after which the temperature rose to 106, followed by severe pain in left thorax, which proved to be the beginning of another attack of pleuro-pneumonia, which passed through all the stages that I have just related in the attack on the right side, with temperature, pulse and respiration during the course of the disease a counterpart of the first attack.

On the morning of the 10th of November, temperature 102⅕, pulse 130, respiration 28. Patient contiued to improve from this date. A slight cough with expectoration of light-colored sputa continued until December 28th, with occasional attacks of perspiration; the temperature was taken on until the 28th of December.

The characteristic symptoms of two of these cases were alike in several respects. The locations of the pustules were both on the right side of the face, and located at the same place. The intermediate integument between the pustules and lips were not affected by the disease in either case. The inflammation or extension of the disease appeared to be from the right side of the pustules along the integument covering the basilar portion of the inferior maxilla, to near the angle of the jaw, and then curving upwards over the face along the anterior border of the Masseter muscle.

On the second night, or twenty-four hours after pustules were noticed, and twelve hours after red streaks or lines extended along the lower margin of jaw, and then the lower half of the lips became affected, and twelve hours after the upper lip became affected in both cases, and then the right half of the face, forehead and scalp in the case of Mrs. R., and the face of Mr. R. became œdematous.

From the observation of these cases it appears that the disease may be divided into four periods or stages—first, the period of incubation, which may be from a few hours to fourteen days, with no prodones; second period, the formation of pimple, papule, and pustule, lasting from twelve to twenty-four hours; third stage, the extension of the œdema and inflammation, occurring twelve hours after the formation of the pustule; fourth, the stage of gangrene, occurring in from twelve to twenty-four hours later. The disease extended by the poison being carried by the superficial lymphatics only. I am led to this conclusion from the fact that in three of the cases the disease extended from the right side of the pustule, curving upwards over the face; and not until the lines of inflammattion or œdema had reaced above the line of Wharton's duct, did the lips show evidence of disease. Again, the disease in all of the cases was confined to one side of the face, head, neck and scalp, and did not pass ovrr the median line of the face or the median line of neck posteriorly. The treatment of all of the cases was similar in most respects.

In the second case, Mrs. R., the treatment was free crucial incision of the postule; injection of pure carbolic acid into the pustule; quinia in large doses, carbonate ammonia, tinct. ferri chloridii and whiskey punch internally; free incision of the lips, and injection of pure carbolic acid, with local application of alcohol to the face.

The third case, Mrs. H., I did not treat.

The fourth case, Mr. P., was under my care from the time the papule was formed; free crucial incision was practiced at once, and pure carbolic acid was injected into the tissues around the pustule; he was put upon quinia, four grs. every three hours; tinct. ferri chloridii, thirty drops every three hours, and whiskey punch. As soon as the lips showed indi-

cations of the disease, free incisions were made, and carbolic acid was injected into them, and also into the angle of the mouth; lead-water and laudanum applied to the face, which appeared to act better than alcohol; used as a poultice, linseed meal, tar, and tinct. iodine; when indications of septic poisoning occurred, he was given aqua chlorinta in drachm doses every four hours, which was continued until December 20th. The attacks of pleuro-pneumonia were treated by counter-irritation of the thorax, and quinia, carbonate of ammonia, with the addition of morphine.

The immediate cause of death in these three cases was, I believe, by thrombus of the cerebral veins or sinuses, the intimate connection of the pterygoid plexus with the facil vein, also the connection of the ophthalmic vein with the angular vein; a continuation of the facial, and the vein passing from the internal surface of the nasal cavities up through the foramen cæcum to the longitudinal sinus; the pterygoid veins and ophthalmic veins emptying into the cavernous sinus. Mr. H., Mr. R. and Mrs. H. became rapidly comatose, had stertorous breathing and complete paralysis before death, all symptoms of compression of the brain. Bilroth reports a case of death from malignant pustule, in which the post-mortem examination showed thrombus of the temporal veins, that was traced to the ophthalmic, and through the ophthalmic to the brain. Bartholow gives as the most frequent cause of sudden death in erysipelas of the face and head, thrombus of either the longitudinal, cavernous, or lateral sinus.

"In cases of malignant pustules rigor mortis usually sets in early, and passes off quickly; the body is often cyanosed; the face may be swollen; petechiæ on chest and abdomen are not uncommon; decomposition usually sets in early. The blood is generally dark, lake and tary, and in the heart often uncoagulated; the subcutaneous cellular tissue of the parts affected is hæmorrhagic, and hæmorrhagic patches radiate into the surrounding tissues, which are extensively infiltrated with a semi-gelatinous blood-stained fluid In the pulmonary and gastro-intestinal form, other anatomieal characters are observed.

"The most important point in the microscopic anatomy is the presence of the bacillus anthracis in the blood and tissues, either diffused or forming masses in the lymphatics and vessels; the bacillus anthracis, as seen in the blood, consists of a motionless, short, apparently homogenous rod or filament, rarely less than $\frac{1}{25000}$ of an inch long, either straight, curved or bent at an acute angle. The usual mode of multiplication in the blood is by transverse fission. The bacillus anthracis requires for its growth the presence of a nitrogenized pabulum and a supply of oxygen; its vitality is destroyed by a temperature of 60° C.; when dry the rods themselves can be preserved but a short timc, while the spores retain their vitality for years and are unaffected by ordinary changes of climate or temperature "—GREENFIELD.

The bacillus anthracis is a bacterium, first discovered by Pollender, in 1849. All parts of the bodies of animals dying of the disease are actively poisonous, and may convey the disease by direct or mediate contagion; it may arise from eating the flesh, though the poison is said to be destroyed by cooking; contagion may also be conveyed by butter or milk. The bites of flies may also convey the poison. Contagion occurs in those who have to deal with the wool or hair of animals which have died of the disease, such as wool packers and sorters, horse-hair cleaners, furriers, tanners The poison may enter the system either by local inoculation, or by inhalation of the dust containing it. The diffusion of the poison by water, and its distribution by means of wool-waste and bone-dust, used as manure, especially deserve notice as capable of spreading the contagion.

"In the earlier stages diagnosis is very difficult, except in persons who are known to be exposed to contagion. At a later stage the characteristic features of the pustule render the recognition comparatively easy, and microscopical examination of the serum contained in the vesicles shows the presence of the bacillus anthracis. Inoculation experiments on guinea-pigs or mice will, if successful, readily decide it, but no absolute conclusion can be drawn from failure to inoculate.

"The prognosis is extremely unfavorable."

MEDICINAL POWDERS.—M. Vigier, an able pharmaceutical writer in the *Gazette Hebdomadaire*, draws attention, in the number for February 1st, to the deterioration which medicinal powders have undergone, since, in place of their former pulverisation at the retail pharmacies, they have been prepared in an impalable form by wholesale establishments. He affirms that inferior products are frequently thus prepared, and look very satisfactoro to the eye, while containing too little of the active principle. Aromatic substances, also, undergo deterioration by the preliminary desiccation they are subjected to prior to this minute pulverisation. Such pulverisation is not, in fact, required, and may even be detrimental; and the Committee of the Paris Codex, entertaining this view, recommended that sieves, having meshes of various sizes, shall be employed in the preparation of different medical powders.—*Med. Times and Gaz.*

NOTE ON A SPECIMEN OF INTRA-CAPSULAR FRACTURE OF FEMUR WITHOUT UNION.*

BY HENRY LEAMAN, M. D.

Mrs. Mary A. Nugent, aged 60 years, fell January 23, 1881, while attending her household duties. Was not dizzy at the time.

I saw her first January 24, 1881; she was then lying on a settee and was unable to stand or move about. On examination, from the preternatural mobility, intra-capsular fracture was diagnosed. My attendance was continued at intervals during the months of February, March, April and May. She was unable to help herself in any way; by help she could be gotton on a Charleston chair, and this was the only treatment attempted. The most of her pain was in the adductors; there were shortening and eversion of toe.

She continued in the same room and on the same settee and chair until I was called to see her, January 6, 1884, when I found her dying from exhaustion. She died January 8, 1884. Privilege was granted to examine the hip. The specimen here presented was obtained. The acetabular cavity was normal in appearance. The head of the femur lay in the cavity free. The socket and head of the bone were covered over with a membrane, firm but somewhat incomplete. Upon this surface the upper extremity of the femur had formed an artificial joint, the neck having been absorbed. In the surrounding tissue on the inner side was a fragment of bone one and one-half inches long.

This case has no special interest, except, perhaps, in the fact that the head had undergone fatty degeneration, and that the patient made so little progress towards locomotion, never being able to walk on crutches. Doubtless degeneration in other parts of the body caused her death. But no further post-mortem was granted.

At the meeting of the American Climatological Association, which convened in Washington, D. C., on May 3rd, Dr. F. Donaldson of this city read a paper on "The Climate of Large Cities Dangerous to Consumptives."

*Read before the Philadelphia County Medical Society, March 19, 1884.

Correspondence.

To the Editors of Maryland Medical Journal:

GENTLEMEN:—Will you kindly grant me the use of your correspondence columns to request from any physician, who may have observed squamous, or other pathological conditions of the skin, following the internal administration of borax [whether for epilepsy or not], very brief notes of the cases for publication?

Treatises upon diseases of the skin do not appear to recognize such conditions; which have yet been observed in England by Gowers, and other writers upon mental and nervous diseases, as also in Boston, in this country. Very respectfully,

EDWARD WIGGLESWORTH, M. D.
79 Boyleston St., Boston, Mass.

SUUM CUIQUE.

Editors Maryland Medical Journal:

In your last number, I see you quote from British authority that to the late Dr. Alex. Woods, of Edinburgh, is due the credit of the origination of Hypodermic Medication. This is an error. Nearly four years before Dr. Woods's suggestion of its use, Dr. Ed. Warren of North Carolina, had employed it by an Anal syringe. This was in 1851. Whilst pursuing his studies in Philadelphia he conceived the idea of injecting a solution of morphia under the skin for the relief of pain, using for this purpose a lancet puncture and Anel's syringe. This device was made the subject of a thesis prepared for presentation to the Faculty upon applying for his degree, but one of the Professors, to whom he confided the idea, so forcibly expressed the opinion that it was both chimerical and dangerous, that the thesis was withheld and another substituted in its place. (See my Balt. Annals of Medicine, *sub verb.* Warren, Edward.)

Respectfully, JNO. R. QUINAN.

Prof. Stillè's valedictory address to his class was marked for its practical wisdom and judicious advice. Its worthy sentiments are in accord with the high character and intelligence of this venerable teacher, practitioner and author, who now retires to a much-needed rest after many years of faithful service.

Society Reports.

THIRTY-FIFTH ANNUAL MEETING OF THE AMERICAN MEDICAL ASSOCIATION.

HELD IN WASHINGTON, D. C., MAY 6TH AND 7TH, 1884.

(*Specially reported for the Maryland Medical Journal.*)

FIRST DAY.

The meeting was called to order at 10.45 o'clock, A. M., by Dr. A. Y. P. Garnett, of Washington, Chairman of Committee of Arrangements. The Congregational Church, cor. of 10th and G streets, was packed with delegates. Upon the platform were seated the officers of the Association. After prayer by the Rev. W. A. Leonard, Dr. Garnett introduced the President of the Association, Dr. Austin Flint, of New York.

ADDRESS OF WELCOME.

Dr. Garnett, as the Chairman of the Committee of Arrangements, then delivered an address, in which he cordially welcomed the profession to Washington. Dr. Garnett spoke of Washington as a place of eminent and renowned gatherings, where the supreme interests of the whole country are studied and discussed by its greatest men in order to enforce those political and constitutional laws which shall best establish and maintain the well-being of the Republic. It was a fit place for the meeting of such a scientific body as the American Medical Association, for no laws were more important or more entitled to consideration than those upon which rest the health of the people. Dr. Garnett referred to the peculiar advantages enjoyed by this body of physicians for its interests are not affected by sectional considerations or party ambitions. The physician is not responsible to his constituents. He moves in a higher plane and is the servant only of scientific truth. The truths of medical science are not patented for individual use, or converted into practical profit by huge monopolies.

He referred to the mission, to the duties and to the responsibilities of the physician. His daily experience forces him to acknowledge there are experiences he cannot understand, laws he cannot explain or regulate, and powers he cannot control. In no department of labor can there be found keener, broader and more profound intellects than in the medical profession. Dr. Garnett referred to the value and importance of these periodical gatherings of the Association and to the useful results which grew out of them.

Referring to Washington, Dr. Garnett said:

"In welcoming you, then, gentlemen, to this beautiful metropolis, I hope I shall be pardoned for the indulgence of that natural pride which prompts me to predict that, at no very distant day, to the many physical beauties and natural advantages which she at present possesses, and which assure her future grandeur, splendor and power, there will be added the sublimest achievements of intellectual effort, the wonderful evolutions and demonstrations of professional science, the highest conceptions and skillful executions of perfected art, representing all the nations of the earth, and conspiring to make Washington the center of those educational and intellectual movements, which, in their development, exercise so large an influence in moulding the national character and in shaping the destiny of our people."

The hearty words of welcome uttered by Dr. Garnett elicited an enthusiastic response from the Association. The report of the executive committee was read by Dr. Garnett, which gave an account of the arrangements that had been made for the reception and entertainment of the delegates and the rates of railroad tickets to returning delegates.

Letters received from A. Peirce Gould, F. R. C. S., of London, and other distinguished surgeons and physicians of Europe to whom invitations had been sent to attend this meeting, were ordered to be printed in the minutes.

Invitations from the Surgeon-General of the Navy to visit the museum of hygiene, and from Dr. Godding the superintendent of the Government insane asylum, were read.

FIVE HUNDRED AND NINETY MEMBERS PRESENT.

The list which was read by the secretary showed the presence of 590 members, but additional delegates will come in to-day and to-morrow.

Dr. J. H. Trumbull, of Ohio; Dr. J. A. Marshall, of Massachusetts; Dr. Garlick, Racine, Wis., and all the members of the Medical Society of the District of Columbia

were made members of the Association by invitation.

ANNUAL ADDRESS BY THE PRESIDENT.

The President, Dr. Austin Flint, then read his address which was listened to throughout with profound interest and enthusiasm.

Dr. Flint began by referring to the early organization of the Association, which was founded in New York in 1847. Dr. N. S. Davis was chairman of the first convention and he was justly called the "father of the Association." He then sketched the gradual growth and development of the Association until the present day. He spoke of the enthusiasm which had characterized the first convention in 1847, and referred to the motives which called the Association into active organization.

These motives were stated to be for the improvement of medical education and the advancement of the standard of medical requirement, the protection of medical interests and the advancement of the science of medicine.

Dr. Flint referred at some length to the wide and rapid progress made in medical knowledge. He alluded to the recent developments in pathology, to the work of Koch and others in the discovery of micro-organisms and the changes likely to be worked in the treatment of disease by the facts thus ascertained. He held that the parasitic theory of disease was gaining ground and thought that means would ultimately be found to destroy micro-organism outside of the body and also within the body. He referred to the system of medical education and advocated a better preliminary training. He rather opposed the study of the classics in the college curriculum and thought that the study of physics, chemistry or the modern languages more desirable for the medical student. He protested against the practice of decrying the system of medical education in this country. Our educational methods, whilst not up the highest standard, were valuable and had accomplished much. He thought it unjust to decry and depreciate the body of the medical profession in this country. The medical profession in America was an honorable body and compared in practical experience and work favorably with that of other countries. The standard of the profession has been constantly raised.

Referring to the social position and influence of the medical profession in this country, Dr. Flint said it was higher than in any other country. He referred to the overcrowded ranks of the profession, and attributed it to the excessive number of medical colleges and to the doubtful character of many institutions. The profession should, he thought, correct this evil by refusing to accept such students and by discouraging such institutions. Dr. Flint urged the appointment of a committee on the part of the Association to confer with schools and colleges in order to secure a uniformity in the standard of requirement for matriculation and graduation. He suggested that the degree of M. D. should be made simply an honorary title, which would not confer the right to practice. This committee on medical education should report at the next meeting of the Association.

Dr. Flint next took up the question of the "Code" of the Association, which had been adopted in the early history of this body and was still in force. He alluded to the excellent work this code had done. The code, he said, speaks for itself. It has exerted a most beneficial effect in this country. In no country, said Dr. Flint, are the rules of ethics better observed than in the United States and this was due to the code of this Association. He suggested the adoption of a resolution specifying with more precision the grounds for refusing co-operation with irregular practitioners.

Dr. Flint suggested the propriety of inviting the International Medical Congress to hold its next meeting in this country in 1890.

Before concluding his remarks Dr. Flint referred to the illness of Prof. S. D. Gross, an ex-President of the Association, to his distinguished services in behalf of science, humanity and the interests of the medical profession. He expressed the deep solicitude of the Association for the recovery of this honored member.

RESOLUTIONS OF CONDOLENCE TO PROF. GROSS.

At the conclusion of the President's address, Dr. J. M. Toner offered a series of resolutions expressing the earnest sympathy of the Association for Prof. Gross. These resolutions were unanimously adopted and ordered to be telegraphed at once.

SECTION ON OBSTETRICS AND DISEASES OF WOMEN.

This Section was called to order at 2.30 P. M. by Dr. T. A. Reamy of Cincinnati, Chairman. The first paper, entitled "Desperate Surgery among Women; the Proper Field for it; who Should and who Should not Attempt it," was read by Dr. W. S. Sutton, of Pittsburg, Pa.

Dr. Sutton defined the meaning of the term, and applied it to all operations which were undertaken in women, and involved the opening of the peritoneal cavity. He classified the different operations which necessitated an in-

cision through the peritoneum. Among the number are: normal ovariotomy, Battey's operation; removal of ovaries and fallopian tubes, Tait's operation; ovariotomy, McDowell's operation; enucleation of the entire uterus by the vagina, Longenbeck's operation; removal of the pylorus for cancer, Billroth's operation; colecystotomy; nephrectomy; radical cure for hernia; laparotomy for cystotomy; Cæsarian section, etc., etc. There are no less than twenty-two operations within the peritoneal sac, and this was designated a special field of practice, rapidly growing into a distinct specialty, which would be fully established in a few years.

In our own country, Dr. Sutton said this branch of surgery is in a most unsatisfactory condition, except in Boston, and there only ovariotomy has been successful. The enquiry was suggested: What is the proper place for this kind of operation? Dr. Sutton answered the question by giving the requirements: a large and well-ventilated house, with large, airy and cheerful rooms, and free from every trace of germs, having perfect sewarage and located in a quiet neighborhood, should be selected for such operations. A conscientious nurse was necessary. The so-called trained nurses were condemned. All the conditions favorable for the operation could be best secured in a private hospital. Tait and other successful ovariotomists, operate in private hospitals. The best results were secured in private hospitals. Who should operate and who should not operate? was a question answered by Dr. Sutton. Not the general practitioner, who daily treats all manner of contagious diseases, not the general surgeon who does all manner of surgical work, not the obstetrician who treats puerperal diseases, not the gynecologist who visits cancer patients. The surgeon who does abdominal work should have no other employment. He should shun all zymotic diseases. No man has made a success who has not made abdominal surgery a specialty. Tait was unsuccessful until he operated in his private hospital. Spencer Wells owes his success to the seclusion of the Samaritan Hospital.

Dr. Donald McLean, of Michigan, opened the discussion on Dr. Sutton's paper. He had given this subject a great deal of attention. He had watched the career of the great operators. Theoretically, the principles advocated by Dr. Sutton will do. In England, by reason of the short distances and easy communications, patients can seek specialists, but in America—a country of vast distances and widely scattered communities—such a thing was impossible. He protested against the centralizing, discouraging and monopolizing views advanced by Dr. Sutton. His experience had been successful in abdominal surgery, and he proposed to continue to practice after his own methods, and after the dictates of his own conscience.

Dr. Geo. J. Engleman, of St. Louis, said the greatest difficulty in medicine was to blend theory and practice. He referred to the experience of the late Dr. Hodgen, of St. Louis, a most successful general surgeon, but most unsuccessful in abdominal surgery. He could only refer his want of success in the latter field to his large business in surgery, to his daily attentions to ulcers, erysipelas, and other contagious diseases. Cleanliness was the great law enunciated in the views of Dr. Sutton. This principle should apply to all surgeons. Let every operator follow this law to the best of his ability.,

Dr. Beech, of Ohio, said Dr. Dunlap, of Columbus, had a large experience in abdominal surgery. He requested Dr. Dunlap to relate his experience.

Dr. Dunlap had devoted his attention to this subject for over 40 years. Theoretically, the views enunciated by Dr. Sutton were true. He considered the condition of the patient an important factor in the success of the operation. He would operate on no patient who believed she would die. She must be inspired with courage and have faith in the success of the result. He is careful to exercise strict cleanliness and to remove all fluid from the abdominal cavity. He lost three cases in succession after simple ovariotomies, and with no cause to assign, and yet in his last twenty-two cases he has had only two deaths. He was opposed to the use of carbolic acid in the abdominal cavity. It paralyses the absorbent action of the peritoneum and diminishes the secretion from the kidneys.

At the conclusion of Dr. Dunlap's remarks a telegram was read by the chair, announcing the death of Prof. S. D. Gross. On motion, the section adjourned until 4 o'clock, P. M., through respect to the memory of Prof. Gross.

SECTION ON MEDICINE.

The Section on Practice of Medicine of the American Medical Association was called to order in the Congregational Church at 2.30 P. M., by the Chairman, Dr. J. V. Shoemaker, of Philadelphia.

The first paper was read by Dr. Edward Janeway, of New York, and was entitled "Simulation of Pathognomonic Signs and Symptoms."

He was led to write his paper from seeing so many mistakes made by relying on the so-called pathognomonic signs. Snap diagnosis are very liable to lead to mistakes.

Choked disk was at one time thought to be pathognomonic of cerebral tumor. We now limit it to an indication of increased intracranial pressure. Certain conditions of the retinal vessels were also relied upon as determining the state of the circulation within the brain. Tremor is relied on as indicating multiple sclerosis, but before this meaning can be attached to it, metallic poisoning and the effects of alcohol must be excluded.

The significance of coma is often difficult to determine. Some assert that in uræmia the temperature is elevated, while others assert that it is normal. A lower temperature at the onset with a subsequent elevation, is relied upon by the author as indicating cerebral hemorrhage. Some would rely upon albumen and casts in the urine, but this may be misleading, for in cerebral hemorrhage there is often renal disease. There is no reliable guide in distinguishing embolism from hemorrhage. Heart symptom may exist, and yet the case not be one of embolism, while, on the other hand, these may be absent, and yet the attack be one of embolism, the embolus coming from a clot outside of the heart.

In some cases of fever there is rigidity of the muscles of the neck, and this may lead to the diagnosis of meningitis. In pulmonary sounds, vocal fremitus cannot be relied upon as distinguishing consolidation of the lung from pleural effusion. It may be present in the latter condition, and may even be intensified. Bronchial breathing is frequently present with pleural effusion. It is however usually found at the upper limit, and is somewhat snuffling in character. Sometimes it is so distinct that the best observers may be mislead.

The physical signs of cavity may exist with the lung solidified or compressed with fluid. The writer drew attention to what he termed normal pectoriloquy.

In heart diseases, it is supposed that if a murmur is heard over the heart it is due to disease of the valves. This is not always true. The double arterial murmur is not always diagnostic of aneurism, the writer reporting cases in which it was due to pressure of a tumor.

The doctor then alluded to the great liability of mistaking the dyspnœa of Bright's disease for that accompanying cardiac troubles. In regard to the presence of albumen in the urine, this may occur in healthy individuals. Hyaline casts may also occasionally come from healthy kidneys.

DISCUSSION.

Dr. Donaldson, of Baltimore, thought that there were points of distinction between the bronchial breathing of pleural effusion and that of pneumonia. In pleurisy it is more pronounced in inspiration than in expiration. It is also less harsh. It is not ordinarily heard at the commencement of the effusion. At least one-third of the pleural cavity must be involved before bronchial breathing is heard.

Serious lesions of the heart may have no murmurs. This is pre-eminently true in large insufficiency of the mitral valve. The intensity of the murmur being directly proportional to the smallness of the orifice. Mitral stenosis may be present without murmur, and the writer could recall *all* cases in which this had happened.

Dr. Lynch, of Baltimore, referred to a case which he had seen a number of years ago in which bronchophony was associated with pleurisy. He explained its occurrence by the existence of adhesions between the pulmonary pleura and that of the diaphragm, preventing compression of the lung.

Dr. Janeway stated that the bronchial breathing was heard near the top of the fluid in pleural effusion, not going more than two inches below the level. The mistakes were made in not recognizing this peculiarity.

Dr. Austin Flint, Sr., of New York, read a paper on "The Clinical Study of the Heart-Sounds."

He divided the heart-sounds into five distinct sounds, two of which were diastolic and three systolic. The diastolic sounds are the aortic and pulmonic, being made at the corresponding valves. The systolic sounds are the mitral, tricuspid and sound of impulsion, produced by the impulse of the heart against the chest wall. The booming character of the first sound is due to the impulse. This is heard with the greatest intensity at the apex. The mitral sound is heard a little to the left of the apex, while the tricuspid is heard to the right.

The writer next considered the significance of alterations in the character of each of these sounds. Incompetency of the

aortic valve is generally, if not invariably, represented by a regurgitant murmur. This simply shows incompetency without giving any idea as to the amount. This is to be determined from other points, particularly by a comparison with the power of the left ventricle as shown by the sound of impulse. Abnormal increase in the intensity of the aortic sound is referable to two causes. 1. Increased power of the systole of the left ventricle. 2. Increased blood pressure in the systemic arteries. Experiments have been made which tend to show that increasing the blood pressure has no effect on the aortic sound. The intensity of the pulmonic sound is increased by increase of the blood pressure in the pulmonic arterial system. Insufficiency of the mitral valve is represented by a murmur, which simply denotes insufficiency without giving information as to its amount. The sound of impulse furnishes this. The sound of impulse is increased in cardiac hypertrophy and diminished or absent in weakness of of the ventricular systole. Alterations in the tricuspid sound are not of much importance on account of the rarity with which this valve is attacked with disease. Hypertrophy of the right ventricle intensifies it.

Dr. Fred. C. Shattuck, of Boston, stated that many authors claim that the muscular contraction is an important element in the formation of the first sound of the heart.

Dr. James C. Wilson, of Philadelphia, referred to the fact that the Germans had for sometime been following the plan suggested by Dr. Flint in the study of the heart-sounds. He had himself been employing a similar plan, dividing the sounds into four instead of two. He would like to hear what Dr. F. had to say in regard to the muscular contraction being one element of the first sound.

Dr. McSherry, of Maryland, spoke of the value of a study of the pulse and contrasted our present knowledge of diseases of the heart with that of thirty years ago.

At this point a telegram was received from Philadelphia announcing the death of Professor S. D. Gross. A motion to adjourn the meeting of the section was made.

Before the question was put Dr. Austin Flint, Sr., stated that he had been an intimate friend of Dr. Gross for over thirty years, and he believed that Dr. Gross would be the last to wish that the proceedings of this convention should be interrupted by his departure from this world. The motion was not adopted.

Dr. J. S. Lynch, of Maryland, referred to the importance of alteration of the aortic sound in Bright's disease. He thought that a large part of the booming character of the first sound was due to the vibration of the aortic walls at each systole of the heart. He could not understand why increase in the blood pressure in the large arteries should not increase the intensity of the aortic sound. Dr. F. had stated that the intensity of the pulmonary sound was increased by increase of blood pressure in the pulmonary arterial system. Why should not the same result follow increased pressure in the systemic arteries?

Dr. Garland, of Massachusetts, stated that it was often difficult to decide whether a murmur was coincident with or replaced the cardiac sound. This is important to decide in diagnosis. He spoke of the importance of getting rid of the respiratory movements in trying to determine this point. A murmur will sometimes disappear when the breath is held for a moment. A deceptive murmur is sometimes heard at the base of the heart, to the right or the left of the sternum and up and down its border. It is systolic in time. The peculiarity of this murmur is that it disappears on full inspiration.

Dr. Donaldson, thought it a question whether or not the impulse of the heart could produce a sound. Muscular contraction does not produce a sound, or at least not of sufficient force to be heard without very delicate instruments. Experiments have shown that the first sound is produced by the closure of the mitral and tricuspid valves. Where these have been prevented from closing the sound has been absent. In regard to presystolic murmurs Dr. Leamy of New York, has claimed with much plausibility that they are not really presystolic, but that they occur at the beginning of the systole.

Dr. Flint in concluding the discussion said that many of the points advanced were in reference to the mechanism of the sounds and in regard to murmurs. These he had not touched on in his paper and therefore he waived any consideration of them at this time. His paper was concerned solely with the clinical aspects of the heart sounds. In regard to the Germans having taught

the subject in the same manner as he did, he would call attention to the fact that 26 years ago he had pointed out this plan. He could not explain why the blood pressure acted differently in the pulmonic and systemic arteries, but such appear to be the fact.

Dr. Duhring then read his paper.

Abstract of Paper on Dermatitis Herpetiformis. By Louis A. During, M. D., Professor of Skin Diseases in the University of Pennsylvania.

Under the name of Dermatitis Herpetiformis, the author proposes to group a number of cases of a rare disease of the skin which he has met with from time to time, having some features in common with several well known diseases, notably herpes, pemphigus and eczema, but which nevertheless is distinct from these affections. It manifests itself by the formation of erythematous patches of an urticarial or erythema-multiforme-like character; variable-sized, irregularly-shaped or stellate, flat or raised, more or less grouped, herpetic vesicles; blebs of similar character; pustules, flat or accuminate, whitish in color, with a more or less inflammatory base; and papules, vesicopapules and variously-sized, circumscribed infiltrations,—all the lesions inclining to assume an herpetic character (taking herpes zoster as the type of eruption), accompanied with violent itching. One or another of these varieties of lesions may be present alone, or as often happens, they may appear together as a mixed or multiform eruption, or the several forms may succeed one another during an attack or as a subsequent relapse. The disease is remarkable for the multiformity of lesion. Thus it may be divided into the erythematous, papular, vesicular, bullous, pustular and multiform varieties. This protean and multiform nature of the disease, has been previously pointed out by the author in the second edition of his treatise on skin diseases in considering the "impetigo herpetiformis" of Hebra, which represents the pustular variety of dermatitis herpetiformis according to Dr. During.

The author concluded his paper by giving the following resume:

1. The existence is shown of a distinct, clearly defined, rare, serious, herpetic disease of the skin, manifesting itself usually in successive outbreaks, characterized by more or less systemic disturbance, a variety of primary and secondary lesions, and severe itching and burning.

2. The disease is capable of appearing in many forms, having a tendency to run into one another irregularly, the principal varieties being the erythematous, vesicular bullous and pustular which may occur singly, or together in various combinations.

3. The dise ase is protean in character and is remarka ble for its uniform multiformity.

4. The pustular variety is the same manifestatisn as that described by Hebra under the name "impetigo herpetiformis."

5. The term "dermatitis herpetiformis" is sufficiently comprehensive and appropriate to include all varieties of the disease.

6. It may occur in both sexes and in women independent of pregnancy.

7. It usually pursues a chronic, variable course, lasting years and is very rebellious to treatment.

Dr. Black, of Illinois, read a paper, entitled:—

THE PRODUCTION OF POISONS BY MICRO-ORGANISMS,

in which after an extended review of the subject, he summed up in the following conclusions:

1. All cognizable forms of life are dependent upon the products of molecular change in matter for their continued existence.

2. Every cognizable form of life, capable of independent existence, must have the power of digestion for the preparation of food material for the nutrition of its material structure.

3. Each living cell must appropriate to its nutrition, food material prepared by a digestive body of its own, or by the appropriation of material prepared for it vicariously by some allied living cell.

4. Every living cell must support its life and material structure by a continued inhibition and remolecularization of matter within itself, except during special provisions of rest, as in the seed, egg, etc.

5. Every living cell must as a result of the remolecularization of matter within itself throw off waste products of two classes, a respiratory waste, rich in oxygen and an urinary waste, poor in oxygen. All waste products are poisonous to the lives from which they emanate.

6. The natural organic poisons are uniformly waste products of the organisms in which they are formed.

7. Pathogenic micro-organisms by their remolecularization of matter form poisons analagous to the vegetable alkaloids, which

are the active agents in the production of disease.

8. While I should not class the digestive ferments as diastaste, etc., as organic poisons, they may act as irritants when applied to another form of life than that which produced them.

9. Normal tissues resist the invasion of the micro-organisms by throwing out matter calculated to destroy them or dissipate or nullify their action, aroused thereto by the presence of an irritant agent given out by the micro-organism.

The last paper of Tuesday's session was read by Dr. Traill Green, of Easton, Pa

THE NEW OFFICINAL CHLORATE.

He regards the chlorate of sodium as far more efficient than the chlorate of potassium. He had been using it since 1866. It is soluble in one and a-tenth parts of water. The doctor then mentioned some of the diseases in which he had employed it. It is applicable to all conditions in which the potassium salt has been used. He had employed it in poisoning with the Rhus toxicodendron with great satisfaction, bathing the part with a solution of from 1 to 3 drachms to the pint of water. For eighteen years he has used no other treatment. A solution of 12 grammes to a litre of water is a soothing application in erysipelas. The caution was given not to allow the cloths saturated with the solution to become dry, because they were readily set on fire. In conjunctivitis a solution of 4 grammes to 500 c. c. of water is of service. The sodium salts do not act on the heart as do the potassium compounds. A section of heart muscle placed in a solution of potassium salt is soon completely paralysed, but if removed and placed in a sodium solution, its irritability is regained.

Dr. Caldwell, of Baltimore, had also used the sodium chlorate with satisfaction, and fully endorsed the statements of Dr. Green.

Adjourned.

SECOND DAY. WEDNESDAY, MAY 7TH.

The Association re-assembled at the Congregational Church, at 10 o'clock, A. M. After prayer by the Rev. W. A. Bartlett, D.D., the President announced in eulogistic remarks the death of Prof. S. D. Gross, a former President of the Association. A committee was appointed to draft resolutions of respect to the memory of the deceased.

The Committee of seven, to which was referred the President's address, was named as follows: Drs. N. S. Davis. W. W. Dawson, W. T. Briggs, D. W. Stormont, T. F. Prewitt, J. L. Cabell, and H. B. Ransom.

The Committee on Invitation to the International Medical Congress in 1887 was announced, as follows: Drs. J. S. Billings, Washington; L. A. Sayre, New York; R. Filts, Boston; L. Morris Hays, Philadelphia; Henry F. Cambell, Georgia.

SANITARY SERVICE ON BOARD OCEAN STEAMERS.

The Committee appointed to report upon the resolution for securing more competent medical and sanitary service on board transoceanic passenger vessels, through the chairman, Dr. A. N. Bell, made a report. He stated that after due consideration a bill was prepared and placed in the hands of Hon. H. W. Slocum, member of Congress at large from New York, who had introduced it in the House, and it had been referred to the Committee on Commerce. This bill, which is entitled a bill "to regulate the carriage of passengers by sea," provides that in all such vessels two compartments shall be provided, exclusively to be devoted to hospital uses, one for men and one for women. It requires the employment of a medical practitioner, and when the number of passengers exceeds 600 he is to have an assistant. The doctor is to report to the captain such regulations as he wishes carried out.

The report of Dr. Bell elicited a discussion, which was participated in by Dr. Kaiser, of Philadelphia; Dr. Irwin, of New York, and Dr. Jones, of Pennsylvania. Dr. Kaiser thought that the bill was a good one, but it did not go far enough, as it should require the surgeon of the vessel to report directly to the United States Government and not to the captain of the vessel. Dr. Irwin said that, owing to the fact that the bill allowed the doctors to be appointed by the company and to be under their control, it was impracticable. He favored the plan of making the doctor independent of the company, and in all sanitary matters the authority, subject only to the laws of the United States. Dr. Jones said that from his position as a Government Medical Inspector he had never found that captains of our vessels interferred with sanitary regulations, or that the hospitals of those vessels were occupied with rope and waste matter. The report of the Committee was accepted and the Committee continued.

A resolution urging upon Congress immediate action in this matter was adopted.

THE NOMINATING COMMITTEE

was announced as follows: Jerome Cochrane, Ala.; P. O. Hooper, Ark.; J. W. H. Lovejoy, District of Columbia; H. Galloway, Dakota; Jesse Harris, Colorado; G. L. Porter, Conn.; W. Marshall, Del.; F. W. Hatch, Jr., Cal.; E. P. Cook, Ill.; T. B. Harvey, Ind.; H. C. Huntsman, Ia.; F. T. Dickman, Kansas; W. H. Walthen, Ky.; T. G. Richardson, La.; F. C. Thayer, Me; J. S. Lynch, Md.; B. A. Duncan, Miss.; D. Leasure, Minn.; Chas. A. Savory, Mass; N. F. Essigs, Mo.; C. J. O. Hagner, N. C.; J. W. Parsons, N. H.; H. F. Lester, Mich.; S. F. Meser, Neb.; J. W. S. Gouley, N. Y.; J. Parrish, N. J.; W. M. Beach, Ohio; J. B. Murdock, Pa.; J. H. Eldridge, R. I.; W. Huger, S. C.; J. H. Pope, Texas; Duncan Eve, Tenn.; Alex. Harris, Va.; H. D. Holton, Vt.; George Beard, W. Va.; Wm. Fox, Wis.; J. R. Smith, U. S. A.; N. C. Bates, U. S. N.; Walter Wyman, U. S. M. H. S. This committee will report a list of officers for the Association at the session to-morrow.

Dr. John V. Shoemaker, of Pennsylvania, Chairman of the Section on Practical Medicine, read a report, in which he said: "The field of pathology and pathological research, the study of the infinitesimal, has attracted great attention, and of the subjects prominently brought to the attention of the profession, and exciting universal interest more than any other, is that of the bacillus theory of tuberculosis and its contagious character. Only a few years ago Koch stood almost alone in its advocacy, but now similar confirmatory evidence has been produced by Pruden, Dreschfeld, West, Gibbs, Heron, Wipham, Meissen, and others. Dr. Austin Flint, Sr., accepts the new theory as well as the etiological character of microorganism when added to predisposition, leaving the subjects of contagion dependent upon the causative element combined with the favorable soil for its propagation."

Dr. Shoemaker referred to the grave accusations cast upon American pork by some of the European authorities, and said that trichinosis is with us a very rare disease indeed in comparison with its frequent occurrence in continental Europe. In conclusion, Dr. Shoemaker referred to the tendency manifested on the part of specialist to form cliques, and exclude the rest of the profession from their deliberations, which the speaker characterized as an attempt more to form an aristocracy in the most democratic of professions.

The Association adjourned at 1 o'clock to meet again on Thursday at 10 o'clock, P. M.

At 2.30 P. M., work was resumed in the different sections.

The vast amount of matter presented before each section and before the general Association renders a mere reference to this only possible in the present issue of this journal. We have presented to our readers a full report of the section on Practice of Medicine, and a partial report of section on Obstetrics for the first day's session, and will continue in future numbers of the JOURNAL to publish abstracts of the most important papers read. A vast mass of literature will emanate from this meeting of the Association, much of which will be valueless. Such practical suggestions and original observations as may be of special use to the profession will appear in this journal.

ENTERTAINMENTS AND RECEPTIONS.

Socially, the meeting of the Association will prove a grand success. The profession of Washington has extended a most cordial welcome and hospitable reception to delegates. The public and private receptions have occupied every spare moment, and have added invariably to the enjoyment of the meeting. On Tuesday President Arthur gave a reception at the Executive Mansion, which proved to be the largest given this season. The delegates and their wives were introduced by Dr. F. B. Loring, of Washington, and were received by the President, and Attorney General and Mrs. Brewster. Later other Cabinet officers and ladies arrived and joined the group, while members of the foreign legations and a large number of ladies and gentlemen dropped out from the throng of guests and lingered for a short time in the Blue Room. Among these were Secretary Lincoln, Secretary Teller, Minister and Mrs. Foster, Dr. Norris, Mrs. Gen. Ricketts, Dr. Garnett, Dr. Magruder, Postmaster General and Mrs. Gresham, Justice and Mrs. Blatchford, Justice Harlan, Gen. and Mrs. Sheridan, Col. and Mrs. Sheridan, Admiral Porter. Gen. Hazen, Mr. Geo. Bancroft, Hon. Robert C. Winthrop, Mrs. Bancroft Davis, Mrs. Jerome Bonaparte, Mrs. Craig Wadsworth, Senator and Mrs. Logan, Senator and Mrs. Morrill, Mrs. Laughton, Miss Berghmans, Mrs. Bailey, Mrs. and Miss Coffey, Mrs. Pollock, Commissioner, Mrs. and Miss Loring, Mr. and Mrs. Henry Sandford, Mrs. Selfridge, the Hawaiian minister and Mrs. Carter, Count d'Arshot, Assistant Secretary and Mrs. Davis, Mr. John Chew, Mrs. and Miss Emory, Miss Lee, the Chilian,

Russian and Japanese ministers, the Swedish minister and Countess Lewenhaupt, Mrs. Dorsheimer, Mrs. N. P. Hill, Representative and Mrs. Lyman, Representative Hoar, Senator and Mrs. Hawley, Senator and Miss Miller, and many others. The East room was handsomely decorated.

THE RECEPTION BY MRS. LEITER.

After leaving the White House the members of the Medical Association went to the residence of Mr. L. Z. Leiter, where a large reception was held in their honor. Mr. Leiter was absent in New Mexico, but the guests were received by Mrs. Leiter, assisted by Mr. and Mrs. Spofford. The handsome parlors of the "Blaine Mansion" were thrown open to the large assembly, and refreshments were served standing.

(TO BE CONTINUED.)

THE THIRTY-FIFTH ANNUAL SESSION OF THE MEDICAL ASSOCIATION OF GEORGIA convened in Macon, April 16th, and continued in session three days. The annual address was delivered by Dr. A. W. Calhoun on "School Hygiene, in Relation to its Influences upon the Vision of Children." A number of reports and volunteer papers were presented by different members. The next meeting will be held in Savannah on the third Wednesday in April, 1885. Dr. Eugene Foster, of Augusta, was chosen *President* for the ensuing year, with Drs. J. B. Roberts and W. D. Bozzell as *Vice Presidents*, Dr. James A. Gray, of Atlanta, *Secretary*, and Dr. E. C. Goodrich, of Augusta, *Treasurer*.

THE ELECTION OF OFFICERS OF THE MEDICAL AND CHIRURGICAL FACULTY OF MARYLAND for the ensuing year resulted as follows: Dr. Thomas S. Latimer, *President;* Drs. J. R. Quinan and I. E. Atkinson, *Vice-Presidents;* Dr. G. Lane Tanneyhill, *Recording Secretary;* Dr. T. B. Brune, *Corresponding Secretary;* Dr. R. H. Thomas, *Reporting Secretary;* Dr. W. F. A. Kemp, *Treasurer;* Drs. P. C. Williams, J. E. Michael, J. A. Steuart, L. McL. Tiffany, and J. S. Lynch, *Executive Committee.*

THE AMERICAN SURGICAL ASSOCIATION, which held its Fifth Annual Session in Washington, on April 30th to May 3d inclusive, was a most successful meeting of this body. The attendance was large, and the work done fully up to that of any previous meeting. A number of valuable papers were read, and the discussions were of an instructive and interesting character. The Association numbers 93 Fellows and 3 Honorary Fellows.

Editorial.

THE AMERICAN MEDICAL ASSOCIATION which convened in Washington during the present week was a most successful gathering of medical men. Fully two thousand physicians from all parts of this country were brought into close relations after one or more years of work in the revolving circle of a practitioner's life. Old friendships were revived and new friendships were made, the cares of practical life were laid aside; greetings, handshakings and smiles took the place of sterner actions and countenances, and this crowd of doctors were made for the time, at least, happier and better men by thus coming together. The meeting was a decided success socially, at any rate, and if we take this view of these annual gatherings and no other view of them, the American Medical Association is doing a good and useful work for the profession of medicine. It is customary to criticise the scientific work done by the Association,—for critics must find fault with something—but it is quite evident to the impartial observer that in this respect the Association is not as deficient as in the past. There were many good papers read before the Sections, so that the scientific work of the Association this year will appear to a creditable advantage. It is apparent to those who have attended the Association for some years past, that every year witnesses an increased interest and influence growing out of this organization. It is encouraging to look forward to the not distant day when the profession in America will feel that just pride in its National Association, with which every British physician contemplates the imposing influence and authority of the British Medical Association. Let each member of the American Medical Association devotedly work for the elevation and growth of this body.

THE MEDICAL EXHIBIT during the meeting of the American Medical Association has been highly creditable to the enterprise and skill of American pharmacy. The display of pharmaceutical preparations, instruments and medical literature was a fair illustration of the resources which the art and science of trade have placed at the service of the profession of medicine.

The many attractive ways which pharmacy has devised to disguise the disagreeable features of administration and dosage is in striking contrast with the crude and nauseating combinations universally employed a few years back. The gelatine and sugar-coated pill, the capsule, the elixirs, extracts and emulsions have simplified the method of prescribing and administering remedies by removing the discomfort to taste and smell, by securing uni-

formity of combination, and by reducing the mechanical labor formerly required to compound or administer doses. For this vast service the profession is indebted to the enterprise and skill of pharmacy. We doubt not that every physician who took in the Medical Exhibit at Washington felt forced to recognize this service to a sister science, and was struck with the beauty and perfection which has been reached in this department of scientific work.

The Death of Prof. S. D. Gross removes from the profession of medicine its most honored and distinguished member After a long and earnest life spent in the service of the science he has done so much to expand and enrich by his observations and by his pen, he has fallen into rest regretted and mourned throughout the civilized world. Prof. Gross was perhaps more widely and favorably known than any American physician, unless we except Marion Sims. His eminent attainments as a scholar, teacher and practitioner; his lofty character and noble heart; his extreme devotion to the interests and claims of his profession centered upon him the respect and esteem of his professional colleagues wherever he was known. His professional career began as far back as 1828, when the States were just entering upon that development and growth so marvelous in their results during the last half century. He early manifested a choice for surgery, and in this field he has contributed, perhaps, the largest share of any American surgeon in developing its literature and resources. His splendid "System of Surgery" is a compilation of vast research, experience and observation. As a guide and authority this work of earnest labor and skill has stood for some twenty-five years as a monument to the genius and power of its cultivated author. As eminent as Prof. Gross was in his profession it is not in this light that his career shines brightest. It is the character and lofty purposes of the man which claim most reverence and esteem. Prof. Gross was richly endowed with mental, moral and physical gifts, and these he has used faithfully and earnestly in behalf of his race. His life has been well spent, and society has profited by his example, influence and labors.

The Death of Dr. Williard Parker took place in New York on April 25th. Dr. Parker was born in New Hampshire, in September, 1800. He was educated at Harvard University, and graduated in 1826. In 1836 he was called to the chair of Surgery in the Cincinnati Medical College. In 1839 he was appointed Professor of Surgery in the College of Physicians and Surgeons of New York. This position he held until 1870, when he resigned the active duties of the chair and became an Emeritus Professor. Dr. Parker was at one time the foremost surgeon in New York, and his fame became world-wide. He was not a writer, but as a lecturer and practitioner he was both successful and popular. He was a man of the purest character and high moral worth. His influence was equal to that of any physician who has practiced the profession of medicine in the City of New York during this century.

Rectal Etherization.—A short time ago M. Molliere called attention in the *Lyon Medical* (March 30th) to a method of administering ether by the rectum. The novelty of this mode of administration at once seized the minds of several well-known medical gentlemen in New York, and a practical test was applied. We find in the *Medical Record* of May 3rd articles from the pens of Drs. William T. Bull, George F. Shrady, James B. Hunter and Robert F. Weir, giving the individual experience and the experiments conducted by these gentlemen in producing anæsthesia by the rectal method. The tests which have been applied so far seem, for the most part, favorable, and the new method is likely to fulfil an important place in the rôle of etherization. Whilst more extended experience is required to perfect the details of etherization by rectal administration, the fact has been established that anæsthesia can be produced with less distress to the patient, with less vomiting and with less excitation than by the cone method. It has been observed that the vapor is readily absorbed and the general anæsthetic effect soon obtained, from two to six minutes being required to bring about a condition of complete anæsthesia. The quantity of ether used is about the same. The patients recover from the effects of rectal sooner than the ordinary etherization and manifest less subsequent distress and excitement. On these points, however, the observers have noted different results, so that it is too early yet to assume the advantages of the method as claimed by Molliere. That this method is not without danger the experience of Dr. Wier fully shows. The drawbacks to the method may be stated briefly: First, the degree of etherization is not always as thoroughly under control as by the cone method, since after complete anæsthesia an amount of

vapor may be left in the intestines sufficient to deepen the anæsthesia beyond safe limits. Second, intestinal irritation may prove a very troublesome complication and the cause of diarrhœa, or of hemorrhage and death. The new method is not considered necessary for prolonged operations. It is recommended chiefly as a valuable addition to the cone method, since it removes the sense of suffocation and distress of inhalation in the first stages of etherization. When the patient has once come under the ether influence by rectal administration prolonged anæsthesia may be continued by inhalation. It appears from the testimony so far offered that this will be the true limit of its applicability, and that it will not supercede but become a valuable addition to the method of etherization by inhalation.

The method of administration by the rectum is as follows: In a graduated resorvoir of glass is placed one, two or three ounces of sulphuric ether, as circumstances may indicate. A large rubber-tubing, eighteen inches to two feet in length, with a vaginal nozzle of a Davidson's syringe is connected with the resorvoir. The tube is introduced into the rectum and the glass reservoir in a vessel containing water at a temperature varying from 120° to 140° F. As the ether boils the vapor is given off freely and absortion takes place by the rectum. The bowels should first be moved by an enema and it is deemed advisable that food should be withheld six or eight hours previous to the administration. In the cases reported by the gentlemen named above there was a marked freedom from unpleasant symptoms, such as excitement, suffocation, nausea and vomiting. A sense of fullness from the distension of the bowel with gas and a tendency to loose passages were the only unfavorable symptoms noted. The last named condition was observed in seven out of seventeen cases observed by Dr. Bull, and was the probable cause of death in a child aged eight months anæsthetized by Dr. Weir. These two gentlemen speak with great caution against the reckless administration of ether by the rectal method chiefly on account of this dangerous symptom. As the new method has already attracted a great deal of attention, we shall probably be able soon to refer at greater length to its numerous advantages and disadvanges.

The Sixth Annual Congress of the American Larygological Association will convene in the hall of the "Academy of Medicine," 12 W. 31st Street, New York, on May 12, 13 and 14, 1884. The morning session will commence at 10 o'clock, and the afternoon session at 3 o'clock. A number of papers will be read. Dr. J. N. Mackenzie, of this city, is announced to read a paper entitled "A Contribution to the Study of Congenital Syphilis." The Association numbers 48 Fellows, 2 Honorary Fellows, and 8 Corresponding Fellows. It is a very prosperous organization and is doing valuable work. Drs. F. Donaldson, J. H. Hartman, Samuel Johnston, and J. N. Mackenzie, of this city, are Fellows.

Obituary.

An Eminent Surgeon Dead—Sketch of the Life and Services of Prof. S. D. Gross.—Prof. S. D. Gross, of Philadelphia, the Nestor of American surgery, died at his residence in that city on Tuesday afternoon, May 6th, at 12.40 o'clock. He had been ill for several days past, and it was quite evident that he was nearing the end of his useful and distinguished career. In the early morning a professional friend had visited his bedside, and, in taking leave, asked him whether he had any message to send to the American Medical Association, which would convene in Washington that day. The message was characteristic of the man: "Bear them my love," said the eminent patient, in a feeble voice. This message was delivered to the Association about the same hour that its author passed to rest. It seems a singular circumstance that the sympathetic expressions of feeling delivered by the President of the Association in his address, and the resolutions of condolence telegraphed by the Association to the dying surgeon, should have emanated during the very moments he was passing into his final sleep. We are not informed whether Prof. Gross was conscious of the solicitude and prayers of the Association in his behalf, but his message of love to a body he had always manifested the deepest interest in was felt and appreciated by every member present. A deep and profound sympathy prevailed when his death was announced later in the day. The Section on Surgery and the Section on Obstetrics, in session when the news of his demise was received, at once adjourned through respect to the deceased.

Samuel D. Gross, M. D., LL.D., D. C. L., Oxon., LL.D. Cantab., was born at Easton, Pa., July 8th, 1805. He was educated at Lawrenceville, N. J., and graduated in medicine from the Jefferson Medical College in

1828. He began to practice in Philadelphia and employed his leisure time in the study of French and German and in translating medical works from these languages. In 1833 he was appointed a demonstrator of anatomy in the Medical College of Ohio, at Cincinnati, and two years later professor of pathological anatomy in the medical department of the Cincinnati College. Four years later he accepted the chair of surgery in the University of Louisville. In 1850 he was called to the chair of surgery in the University of New York, and in 1856 to the chair of surgery in Jefferson Medical College, Philadelphia, which position he filled for twenty-six years. Prof. Gross was a voluminous writer and was ever busy with his pen, which he handled with great skill, fluency and force. His "System of Surgery" made its appearance in 1859, and has passed through numerous editions. This work is a monument of untiring labor, experience and research. For many years it has been one of the highest authorities on surgery in the English tongue. In 1867 Prof. Gross was elected President of the American Medical Association. His interest in this organization has been most striking. He regularly attended its annual meetings, and freely gave his influence and ripe experience in promoting its purposes. In 1872 the University of Oxford, England, conferred the degree of D. C. L. upon Prof. Gross as a graceful compliment to the American Faculty of Medicine. The University of Cambridge, in 1880, following the example of its sister institution, conferred upon him the degree of LL.D., which degree he had previously received from the Jefferson College. The University of Edinburgh recently conferred upon him the degree of LL.D. in honor of her tercentennial celebration. Prof. Gross was President of the International Medical Congress held in 1876 in Philadelphia. He has filled many other high positions of influence and trust. No American citizen has been so honored as this representative of American authorship and surgery. It is needless to say that Prof. Gross has borne these great honors with singular modesty and grace. In his private and public life he has set an example of strict devotion to duty. His influence has been lofty and his purposes in life above reproach.

Medical Items.

The Tercentenary of the University of Edinburgh was attended by delegates from every state in Europe, except Spain, Greece and Turkey.=Dr. Robt. T. Edes, of Boston, will succeed the late Dr. Calvin Ellis as Professor of Clinical Medicine in the Harvard Medical School.=The Louisiana State Board of Health has reorganized by the election of several new members, and the selection of Joseph Holt, M. D , to be its President.=A decoction of the mullien plant is growing in favor as a palliative for the cough of phthisis. Smoking the leaves is also recommended as an effective method of administration=Etherization by the rectum has been tried with success at the Boston City Hospital in several cases.=The Society of Legal Medicine in France has voted that "an honorable physician ought not to take the initiative in proposing the operation of artificial impregnation, but neither ought he to refuse to practice it at the request of the interested persons."=Dr. Robt. Wright died at Centreville, Md., on April 21st, aged 80 years. He enjoyed the distinction of being the oldest graduate of West Point.=Dr. J. L. Nicholson, of Richland's, N. C., will read the "Annual Essay" before the coming meeting of the N. C. State Medical Society on the subject of "Animal Heat; its Sources and Variations."=Dr. J. R. Irwin, in the N. C. *Medical Journal*, recommends the chewing of cinnamon bark as an effective remedy for toothache.=The Thirty-first Annual Session of the Medical Society of North Carolina will meet in Raleigh on May 19th.=The North Carolina Board of Health will meet in Raleigh on May 21st to examine applicants.=Mr. Andrew Carnegie, a member of the Board of Trustees of Bellevue Hospital Medical College, has given $50,000 to that institution.=The Tennessee State Medical Society has appropriated $50 to the Sims Memorial Fund.=Cholera is on the increase at Calcutta and yellow fever at Rio.=The prominent members of the profession of Philadelphia, irrespective of schools, have united in tendering a public dinner to Prof. Stillé in appreciation of his distinguished services as a teacher, scholar and physician. The dinner will be given on May 22d, at Hotel Bellevue.=The Sims Memorial Fund now amounts to near $5,000.=Dr. Emily W. Fifield, a graduate of the Woman's Medical College of Baltimore, class 1884, has been appointed resident physician to the Wilson Sanitarium, located near this city.=Dr. Jos. Blackburn, Ex-Governor of Kentucky, is about to establish a Private Sanitarium in Louisville for inebriates and lunatics.=The body of Prof. S. D. Gross was cremated in the Le Moyne crematory at Washington, Pa., on Thursday, in deference to his wishes. =Dr. HENRY F. CAMPBELL, of Augusta, Ga., has been elected President of the American Medical Association for the ensuing year. Dr. J. S. Lynch, of Baltimore, is one of the Vice-Presidents. The Association will meet next year in New Orleans.

Original Papers.

THE OPERATION OF TRACHELORRHAPHY IN ITS RELATION TO THE CHILD-BEARING FUNCTION.

BY HORATIO R. BIGELOW, M. D., OF WASHINGTON, D. C.

Special literature has been concerned, of late years, very considerably in a consideration of the operation for repair of the cervix uteri. It seems to me that any argument touching the importance of this surgical procedure, or any commentary upon its beneficence in the treatment of certain abnormal conditions is a work of supererogation. No intelligent surgeon disputes this point. Emmet, long ago placed it upon an imperishable basis, so that the citation of cases by individual clinicians is a mere redundancy of proof, not demanded by the necessities of the case. Let it be granted once for all that the operation meets fully the occasion which inaugurated it, viz: the reparation of the laceration, and the relief of the painful symptoms incident thereunto; there yet remains the unanswered problem of the effect which such plastic surgery may have upon subsequent parturition. The tendency to drift away into side issues, in a discussion of this subject has marred the communications of recent writers. Their arguments are a non-sequitur, because they assume a premise and fail to adduce that regular logical coherence of sequences, upon which any assumption must ultimately rest if it would be permanent. To postulate the fact that trachelorrhaphy does not militate against subsequent pregnancies, and then to detail individual cases, in which the operation was performed for the mere relief of symptoms, and without giving the subsequent histories in regard to fertility, is a species of argument lacking every element of conviction. Equally unreliable is the deduction drawn from a limited number of operations in which sterility did or did not happen to ensue. In these days of scientific accuracy, it is not wise to accept as indisputable evidence the *ipse dixit* of any man, however great his reputation may be. The results of his bedside observation, the carefully recorded histories of his own cases extending well into subsequent life-histories—such testimony as this, correlated as it may be with the experience of others, forms the only agencies which should sway the mental processes of the intelligent clinician. The accepted theories of to-day may become the ignorant superstitions of to-morrow, because science never retogrades or remains at a standstill, but is progessive. Scientific medicine is strictly iconoclastic, rather than conservative. It tears down the idols of ancient worshippers, rearing in their places new beliefs, resting upon actual testimony. If A accept without question the statement of B, upon a matter of ethical importance, simply because B has gained somewhat of the knowledge of certain physiological principles, the value of A.'s contributions to scientific literature will only be as the reflections of current opinion, which are never of service as accepted postulates of thought, or as proven *constants* upon which to rear probable deductions. Statistics alone are not of themselves *prima facie* evidence. They must be correlated with all the physiological and surgical facts bearing upon the question at issue. In these particulars trachelorrhaphy follows the same course of reasoning which is applied to other surgical procedures. In certain cases of hard cicatrisation, simulating with greater or less exactness malignant disease, the operation is not only demanded, but its results are satisfactory. There are other cases which Nature herself will cure, if she be aided by proper hygienic and therapeutic measures. Electricity, tonics and a properly adjusted environment, will accomplish more toward the reparation of a lacerated cervix without cicatricial tissue than will surgical interference. All of these considerations, together with others relating solely to the operation itself, have been so largely written about, that I confess to a feeling of disappointment in seeing so much reiteration and quotation from well-known text books in various recent articles. With Savage and Tilt, Emmet and Thomas, Duncan and Howard, Barker and Goodell the student of Gynecology is pretty familiar. If necessary to the proper illustration of an article, reference to them might be made without encumbering valuable space with lengthy, hackneyed excerpts. What is wanted is original concept—the results of original research and investigation and not a re-hash of opinions

which have governed special practice for years. Articles by Drs. Van de Warker and Baer have each dealt with the point at issue,viz.,the effect of trachelorrhaphy upon parturition. Each gentleman has stated his case fairly, though arriving at different conclusions. Not so, however, with an article in No. 8, vol. II., "Journal of the American Medical Association," and which under the caption "On the Importance of Trachelorrhaphy,with Cases and Remarks," turns aside from a great amount of quotation (of which, be it said, the article is mainly composed) on the importance of Emmet's procedure, to the question of its effect upon the child-bearing function,which it curtly dismisses in four lines of printed matter. The writer does not speak ex cathedra. He simply says that the operation has no effect upon preventing conception, and then cites some cases in which the histories are not given, and which are of no permanent value whatever as proof of his autocratic assertion. The paper is merely an epitome of what has already appeared, to which are added four cases of operation, which are barren of usefulness because they are insufficient in detail. As it has little or nothing to do with the subject of this article it may be briefly dismissed, with such incidental commentary as future necessity may demand. I will only add, just here, that the announcement is a novel one, that we are to cut away the cervical mucous membrane for the cure of a catarrh in that region, and that we are then to bring the denuded surfaces together by stitches. What is to prevent the stenosis which must necessarily result from two irritated surfaces thus coaptated? It will not be necessary to quote from the various authors whose opinions are directly opposed to each other. It must be presupposed that readers in Gynecology are *au courant* with the tide of the times. As opposed to Van de Warker's rather dictatorial article is the terse paper of Baer, rich in incidents. Goodell's analysis of about one hundred and sixty-eight cases, which he had treated, and whose histories he had followed, is food for contemplation. Murphy's effective reasoning has not as yet been satisfactorily refuted, and he has at his back quite as much authority and a larger logical inference than Van de Warker or Johnson. The limited statistical table of the doctor from Syracuse, defeats the end contemplated in its publication. He is not to blame for this, since the facilities of extensive bibliography in any private library must be small as compared with the riches of public institutions, the which he feigns to undervalue. From the very nature of things, as well as from our knowledge of tissue reparation it seems to me that Murphy's points are well taken. If we have a large mass of thickened tissue, incident to an extensive laceration stretching up to the cervical canal, the same natural process which unites the pared surfaces on the side of the cervical opening, will be carried along the whole line of denudation —so that, unless preventive measures are used (tampon) there must result, in the very nature of things, a stenosis. If the redundant cervical tissue be not removed, but only so much as is extraneous to it, you only perform one-half the operation. If the whole extent of the changed and everted tissue be pared, and a tampon be inserted into the canal to prevent stenosis, you may overcome the tendency to closure. It may go without saying, that there have been scores of cases recorded in which the surgeon was called to relieve a stenosis of the canal, a resultant of trachelorrahphy. It is folly to dispute it, since it is a matter of record. It would be a strange physiological anomaly if such were not the usual result. Why should a rule which applies to every other similar tissue in the human body be inapplicable here? Why distort the general process of repair to suit individual bias? Look for a moment at plate 70, page 212, Goodell's "Lessons in Gynecology," and explain how it can be possible to carry the paring along the entire diseased track without offering an impediment to the future proper dilatation of the cervix. The cervical canal is stripped of its sensitive epithelial lining, the irritation of the knife sets up a new process of repair, the products of inflammation are thrown out, and along the *entire* line of operation formation, reparation and agglutination take place. Can the lateral edges of the rent participate in the change without reference to the cervical canal which has undergone similar treatment? Shall we denude a part of the laceration, and leave the diseased canal untouched? The lateral edges of the os externum must be pared, as well as other cicatricial tissue, and there will always be some shrinkage. To avoid stenosis we

are told that we must leave a broad strip undenuded in the middle line to form the walls of the cervical canal; but to do this we must leave some cicatricial tissue to continue its disastrous work, and thus we but partially repair the cervix. It would be better practice to complete the entire denudation, and keep the canal open with antiseptic tampons. Dr. Emmet has said: (Gynecological Trans., Vol. 1, p. 99) "A man succeeds in treating uterine disease in proportion to the small amount of cicatricial tissue he leaves behind him. He may succeed in curing an erosion, but the cervix has not been benefitted by leaving it a mass of cicatricial tissue." At the time he pointed out the relation of neuralgia to the amount and density of the altered tissue, and the extent to which the nerve filaments were involved. At this meeting Dr. Byford said that he had found slippery-elm tampons to be of great service in keeping up distension of the cicatrix after division with the knife. In the *American Journal of Obstetrics*, vol. xiii, 1880, Dr. Janvrin reports a case in which labor was greatly obstructed as the result of trachelorrhaphy performed two years previously. Horwitz does not think laceration gives rise to secondary sterility, but quite the contrary; that it facilitates impregnation, since a goodly number of his patients have borne a surprising number of children after the confinement in which the laceration must be supposed to have occurred (*American Journal of Obstetrics*, 1880, vol. xiii, p. 677). Suppose for a moment that we carry the denudation only up to the cervical canal, do we not leave an amount of untouched diseased tissue within the canal, which will either prevent subsequent impregnation, or greatly retard a subsequent pregnancy? Does such unfinished operation meet the demand? Does it cure all of the symptoms? Does it not continue a condition which may result in sterility? Thus, very briefly, from the necessity of the case, I have formulated some reasons which lead me to believe that the operation of trachelorrhaphy as at present performed is not a satisfactory one in all of its details, but rather an unfinished one, and that it is not at all improbable that it may limit the child-bearing function.

It may be objected to my paper that I totally misunderstand the conditions for which the operation is intended, and that cicatricial tissue will only follow in the track of the laceration, and will not invade the canal; that to prevent stenosis care must be taken not to carry the stitches beyond the laceration, or into the canal, so as to narrow its calibre. It may be said that the mucous membrane of the cervical canal is not apt to undergo similar degenerative change. I cannot conceive of an old standing laceration which splits the cervix in a direction opposed to the uterine axis of motion, with its gaping lips and endless train of symptoms, which does not occasion degenerative epithelial change within the canal itself. The original fissure that maps out the canal is often entirely obscured, so that as Goodell says: "it cannot be felt by the touch, or be seen by the eye." Ichorous discharges are going on constantly, the everted lips of the wound often leave the canal unprotected, and can it be supposed that this part of the uterus shall escape free of any of the changes which are altering the aspect of its immediate environment. In old cases there is almost always present a diseased condition of the canal itself. Shall we leave this untouched? If we limit denudation to the rent proper, and put in a last stitch at the extremity of such line of irritation, is there not danger in narrowing the cervical canal?

Mercurial Chronic Poisoning.—Two cases are reported from Nüremberg (*Berliner Klinische Wochenschrift*, No. 53, 1883) of chronic mercurial poisoning due to a simple and perhaps hitherto unrecognized cause. Amongst the artisans especially liable to the affection, mirror manufacturers have always held a foremost place, but the noxious properties of mirrors have been supposed to cease with the completion of the silvering process. In these cases, reported by Dr. Neukirch, all the well-recognized symptoms of quicksilver poisoning were present, and further, the presence of mercury in the urine was clearly established by chemical analysis. Every possible source for the poison was investigated without result, until an examination of the sleeping apartments disclosed the presence of some old mirrors in which the silvering amalgam had become soft and liquefied, and from which vaporisation of the mercury had evidently been slowly progressing. Removal of these mirrors was in both instances followed by complete recovery.

ON PAROXYSMAL FEVER—NOT MALARIAL.*

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That non-malarial intermitting fever is of frequent occurrence few will deny. Such cases have come to the writer's notice so often, that, especially as but little can be found in reference to this subject in medical literature, arranged in a systematic manner, he has deemed it of the highest practical importance to record his observations, for the purpose of emphasizing the value of distinguishing these two forms of intermitting fever. In addition to the hurried narration of illustrative cases, a little time will be taken for the consideration of the mode of recognition of the many sources of origin of paroxysmal fever, and a moment given to the mechanism of fever. It will not be out of place, however, to make a brief reference to the writings of others in this connection, and first to that of the late Dr. Murchison.

In a most instructive clinical lecture,† he called attention to all the forms of paroxysmal fever, giving twelve varieties, viz.: 1. Malarious intermitting fever. 2. Certain cases of Typhoid fever. 3. Certain cases of relapsing fever. 4. Pyæmia. 5. Fever from pent-up pus. 6 Fever from ulcerative endocarditis, with or without embolism. 7. Tubercular fever. 10. Urinary intermitting fever 11. Hepatic intermitting fever. 12. Intermitting fever from morphia.

In addition to examples under each division, he pointed out the clinical features and points of distinction in such detail that it would be supererogatory to enter upon such lines, save in the broadest manner, in this paper.

In the following pages, therefore, cases illustrating the second, fifth, sixth, seventh, and eleventh classes, respectively, of the above, will be recorded, and some new classes will be added, embracing cases of paroxysmal fever due to gastro-duodenal and pulmonary catarrh, to pent-up serum, to forming pus in a confined space.

Since this paper has been in preparation, a volume of the latest St. Thomas Hospital Reports (vol. xii, '81) came into the writer's hands. Of the many able articles contained therein, there is one by Dr. Ord entitled: "On some cases of Pyrexiæ simulating ague." He records a case of ulcerative endocarditis, and one of jaundice with obstruction attended by intermitting fever. Similar cases are detailed below, and hence it will not be necessary to more than refer to them. Cases III and IV of his list are very interesting, and worth repeating in abstract.

CASE III.—Female, æt. 58. Most of life in Mauritius. After returning to England suffered from what was called ague—shiverings, heats and sweatings at irregular intervals. At first no pain, but finally increasingly severe pain, attended with vomiting, was felt in the left iliac region. The symptoms repeatedly recurred for months and were regarded as outbreaks of latent ague acquired abroad. Treatment by quinia and arsenic. She finally, after a severe paroxysm, passed a stone the size of a bean from her bladder. Instant relief followed and six months passed away (to time of writing) without any return of fever or sweating.

CASE IV is more remarkable, and for the possibility of its like appearing to us, it should be kept in mind.

CASE IV.—A man, æt. 30, never in the tropics, had daily attacks of high temperature, with shivering and sweating. He was sallow, worn and emaciated. His liver was enlarged; his spleen not. He had syphilis. The fever would be reduced by quinia, but only for a time. Thirty grains of iodide of potassium daily cured him, the intermitting fever having been considered by Jenner, in consultation, a manifestation of syphilis.

1. The temperature curve of typhoid fever simulates intermittent fever almost always at some period of its course. During the first week of the disease it is a difficult matter to decide whether a true intermittent is present or not, while in the decline of of the disease a distinctly intermitting type is generally recognized. During the period of convalescence one must be watchful that the transient fever which so frequently develops, may not be considered malarial. The temperature during the course of typhoid fever, and the convalescence from it, is, as Dr. Cayley puts it, *labile*. It rises and falls with only the slightest provocation, and frequently takes on an intermitting type.

The following is a rare case of typhoid fever, in which the temperature at the height of the disease was distinctly intermitting, Dying the sixth day of observation, it was noted that four days before death the patient had daily a congestive chill, followed by a very high temperature. The temperature on the morning of the first chill was $101\frac{1}{5}$ (Fahr.), the evening $104\frac{3}{5}$. The morning temperatures thereafter were on the second, third, and and fourth days, respectively, $96\frac{3}{5}$, $99\frac{2}{5}$ and $96\frac{1}{5}$, and on the corresponding evening hour $104\frac{3}{5}$, $105\frac{2}{5}$ and $106\frac{2}{5}$, the latter two hours prior to death. It was considered a case of congestive malarial fever. The autopsy revealed the lesions of typhoid fever about the twelfth day of the disease.

*Read before the Philadelphia County Medical Society, March 26, 1884.

†The causes of intermitting or paroxysmal pyrexia, and on the differential characters of its several varieties.—*Lancet*, May 3, 1879.

II. It is well known that the fever from pent-up pus is frequently, almost constantly, of an intermitting type. An empyema has frequently been overlooked on this account, but it has never fallen to the writer's lot to have a case that could not easily be recognized. It was different in other cases of deep abscesses, however, and notably in a case—the true nature of which, Murchison says, is almost always overlooked—a case of hepatic abscess.*

The patient, a male, 39 years old, had lived on the Susquehanna, near Harrisburg, and had had chills and fever daily, three weeks prior to admission to the hospital. When admitted he did not seem very sick; he had walked to the hospital, and was permitted to be up each day. He was slightly emaciated and his liver was enlarged. He had daily paroxysms of fever, but the sweating stage continued all night, being more prolonged than in malarial intermittents. He died of hemorrhage from the bowels, one week after admission. The hemorrhage was found to be due to extensive ulceration of the large intestine, not suspected during life, on account of the occurrence of constipation. In addition, at the autopsy a large abscess in the right, and two small ones in the left lobe of the liver were found.

The following table exhibits the temperature record, and shows that we should have considered more seriously the low febrile range:

October 9, morning, 99; evening, 100. Oct. 10, morning, 99; evening, 101. Oct. 11, morning, 99; evening, $102\frac{3}{5}$. Oct. 12, morning, 99; evening, $101\frac{2}{5}$. Oct. 13, morning, 99; evening, 102. Oct. 14, morning, $99\frac{3}{5}$; evening, 101. Oct. 15, morning, $98\frac{3}{5}$; evening, 99.

The history of residence in a malarious locality, the temperature record, the absence of marked local symptoms and of intestinal disorders, favored malarial intermitting fever; the absence of enlarged spleen and the low temperature range negatived that fever.

A child was seen with a history of daily febrile paroxysms, suspected to be malarial. The child had a severe paroxysmal cough, however, and was losing flesh and strength rapidly. An examination revealed the physical signs of circumscribed pulmonary consolidation, and the mother related the swallowing of a tack some time previous. Ten days afterwards, after a paroxysm of coughing, the tack and a large amount of pus were expectorated. The hectic soon lessened, the resulting cavity rapidly closed and the patient's health was restored. Another example of deep-seated abscess.

Abscesses developing near mucous surfaces are ofttimes very puzzling, at least in their early period.

*Trans. Path. Soc., vol. viii.

An abscess of the prostate gland, in a man 48 years old, was one of the most difficult to discern. The patient had been sick a week, and when seen by the writer was in the midst of a febrile paroxysm. He had marked gastro-intestinal derangement, with dry, brown tongue, extreme malaise, daily febrile paroxysms, preceded by chilliness, and followed by profuse sweats, which continued in the night; in addition a dulness of intellect was observed. Six days after the first visit urinary tenesmus was noticed, subsequently rectal distress; an examination revealed a distinct prostatic abscess. It is of interest to note that fever did not occur after the abscess had fluctuated, and hence that the forming stage of an abscess sometimes is attended with paroxysmal fever. The following exhibits the evening rise and morning fall, taken on different days:—13th, 4 P. M., $102\frac{3}{5}$; 14th, 4 P. M., $99\frac{1}{5}$, cinch. anticipated; 15th, 12 M., 102, cinch. in lessened doses; 16th, 12 M., $98\frac{1}{2}$, cinch. in increased doses; 17th, 11 A. M., 98; cinch. in increased doses; 18th, 5 P. M., 103, cinch. in again lessened doses; 19th, 9 A. M., $98\frac{1}{2}$, 5 P. M., 103.

A febrile paroxysm was not detected after the 20th, and the table shows that cinchona merely prevented the paroxysms, but did not control them. The case was certainly difficult to analyze. The absence of enlarged spleen, the return of the fever after discontinuing cinchona, and the exhaustive sweats, repulsed the idea of malaria. The appearance of the tongue, the malaise, the headache, and the dulness of mind, with the fever range, made one consider typhoid rather seriously. On the sixth day (19th) after my first visit the local symptoms defined the lesion. The febrile action then ceased, but the local inflammatory condition continued. It would probably explain the cessation of fever with complete suppuration to say that the soft tumor was not so much an irritant as the hard mass prior to pus formation.

Not only must pent-up or forming pus be considered factors in the causation of a periodical fever, but confined serum or forming serous exudation may undoubtedly give rise to intermitting fever. A case of subacute pleurisy with effusion, in which there occurred in the course of the disease distinct intermitting fever, came under the writer's notice. The usual evening exacerbations were present, but in the morning the temperature had fallen to, or almost to, normal. So marked were the paroxysms that an empyema was suspected, and doubt only removed by paracentesis proving the effusion to be serous. Two similar cases have come to his notice in private practice, both in children. The one, a lad 11 years old, had a dry cough for three weeks, with afternoon malaise and fever. The attendant ordered quinine with but little benefit. An examination of the lungs revealed a large collection of fluid in the left pleural sac, which rapidly disappeared under treatment. The temperature was recorded but once daily for obvious reasons, but at times in the mornings, again in

the evening. Invariably an evening rise, a morning fall, were noted; but it never ranged higher than 102, and there were no profuse sweats following. From the rapid disappearance of the fluid and the speedy renewal of the lad's health, the effusion was called serous and not purulent.

It may seem very trite to record such simple cases, but when, only lately, a child was seen in consultation, ill from a supposed meningitis, but truly so from an actual serous pleuritic effusion, one should feel that nothing is commonplace, and that it is the little things that need to be constantly dwelt upon. With this remark it may be stated that the fever of pneumonia may be intermitting. Later in the paper cases of catarrhal pneumonia will be referred to, but now the croupous variety is considered. Four cases, all in children, are recorded in the writer's note-book. Two of the cases were in his care from the first; two were attended by other physicians coming to him later.

In the first case he was egregiously deceived. The child, æt. 4, for five days was well to all intents and purposes, in the morning, eating and playing about with possibly only a slight cough. In the afternoon the temperature would rise to a great height ($104\frac{2}{5}$), and the child would be sick until midnight. Repeated examinations of the lung could not detect a pneumonia until the fifth day. He was misled by the absence of dulness and of bronchial breathing, and the occurrence of tympany over the affected lung, as has been rarely noted.

Case number two, of the same character, occurred in a girl 7 years old. A chill, followed by high fever, with nausea and vomiting, substernal pain and cough, marked the onset. Seen the third day her temperature in the evening was $104\frac{1}{5}$, with the above symptoms intensified, and a very rapid pulse (140) and rapid respiration (48). Both the fourth and fifth days the temperature was normal in the morning, high at night. On the fifth day bronchial breathing was first noted at the right base; on the seventh day, dulness; on the ninth day resolution began; after the fifth day the fever was continuous. It seemed like a case of retarded pneumonia—as regards physical signs—according to the observation of Dr. Andrew Clark.

Following the outline indicated by Murchison, the next form of intermitting fever he discusses is that due to endocarditis. The following case* of ulcerative endocarditis, the febrile range of which was characterized by daily paroxysms, is of interest. There was no difficulty in recognizing the nature of the affection.

TEMPERATURE RECORD.—21st, morning, 1—; evening, $103\frac{2}{5}$. 22d, morning, $100\frac{1}{5}$; evening, $101\frac{2}{5}$. 23rd, morning, $98\frac{2}{5}$; evening, 99. 24th, morning, 98; evening, $105\frac{2}{5}$. 25th, morning, $97\frac{1}{5}$; evening, $103\frac{1}{5}$. 26th, morning, 99; evening, 103. 27th, morning, 99; evening, $100\frac{2}{5}$.

*Trans. College Physicians, Keating.

The writer observed it during life, and deems it worthy of being recorded in this connection.

It would be a great surprise to know how many persons, in the latter stages of phthisis, when giving a history of their complaint, say that it was preceded by malaria, or malaria broke them down. Over and over again is such a sad tale told us in the medical dispensary, and it is a matter of fact that not only do the laity, but many physicians consider early cases of phthisis as malarial in nature, entirely overlooking the local troubles. When speaking of catarrhal fever, the subject will be adverted to again, but the cases of tubercular origin are sometimes none the less examples of intermitting fever, non-malarial. Repeatedly my notes show cases that had been treated for malaria in the early stages. Not only in the formation of tubercle in the lungs, but also in the brain, is the process accompanied by daily paroxysms of fever at times. One case that came under notice was particularly impressive.

The attending physician was going out of town for the summer, and left in the writer's care a little girl 5 years old, in the fourth week of her fatal illness. She had always been a bright child, of nervous temperament and of tubercular diathesis. The illness was of four weeks' duration, marked in the early period by failing in flesh and strength; in the latter period by a chill or chilliness every evening, followed by a night of restlessness and fever. She never complained of headache, nor did she vomit, while her bowels were regular. Eight days before the present attendant saw her, her physician visited her, and attributed the symptoms to malaria; quinine was used. Four days thereafter headache began. The day the writer saw her (fourth week) she had had a slight convulsion and other unmistakable evidences of tubercular meningitis, of which she died in seventy-two hours.

How terrible to be compelled to tell a fond mother the innocent malaria only simulated the baneful meningitis. The writer once made the mistake of attributing a periodical headache to malaria; tubercular meningitis was the cause of the pain. It is seen then, and is well known, that many manifestations of that disease are periodical.

The succeeding case of chronic hepatitis with enlargement illustrates that form of intermitting fever, which is hepatic in origin. The diagnosis was made without difficulty, especially the differentiating from intermittent fever of malarial origin. The following abstract of the history includes all the important points:—

George W.,* æt. 43, German farmer, of Manayunk, contracted diarrhœa during the war, which has always shown some tendency to return. Has had malaria; probably has had syphilis; otherwise been very healthy. Family history good. Admitted September 2, 1877, with well-marked jaundice; emaciated and

*Trans. Path. Soc., 1878.

presented the symptoms of itching, dark-colored urine, languor and sleepiness, and a small, slow and feeble pulse.

The jaundice appeared gradually in February of 1877, proceded by several days of diarrhœa. Since then marked dyspeptic symptoms, relieved by attacks of diarrhœa; stools at times clay-colored, at times normal. Some œdema of feet, but ascites never detected. October 2, liver from fourth interspace to two inches below margin on deep percussion, margin smooth and resisting; no pain or tenderness. October 15 to 25, uncontrollable hiccough. Extreme exhaustion, rapid emaciation, deepening jaundice, semi-typhoid state; death, Nov. 4. Autopsy revealed the diagnosis to be correct.

The temperature record is noted with the remarks of Dr. Guiteras, whose resident physician the writer was at the time, on its curious range, in order to associate the case with a paper on fevers.

October 21, morning, 100; evening, 98. Oct. 22, morning, 98; evening, 103. Oct. 23, morning, 95⅖; evening, 100. Oct. 24, morning, 101⅖; evening. 96. Oct. 25, morning, 93; evening, 101. Oct. 26, morning, 95; evening, 94⅘. Oct. 27, morning, 103; evening, 98. Oct. 28, morning, 95⅕; evening, 100. Oct. 29, morning, 97; evening, 98⅘. Oct. 30, morning, 97; evening, 98. Oct. 31, morning, 94⅘; evening, 96. November 1, morning, 99; evening, 93. Nov. 2, morning, 95; evening, 96⅗. Nov. 3, morning, 91⅘; evening, 91.

"I find that every third temperature is pretty regularly a high one, the fall being very great in the two intervening temperatures; so that the rise and fall do not present the usual relations to the morning and evening hours. The curious range of temperature may be due to an intermittent absorption of effete products from the liver, or an intermittent arrest of the oxygenating processes going on in the liver, an arrest that must influence the general temperature, if we remember that in health the temperature of the organ reaches 106."

In another paper* of the writer may be found reported a case of primary cancer of the gall-bladder.

Early, in fact almost until death, the attending fever was thought to be of malarial origin. The writer, as well as others, made the mistake. Until a few months before her death the fever was distinctly intermitting, with chills; later it became remitting and then continuous. Although there were jaundice and occasional attacks of vomiting, there were no special evidences of localized disease. The spleen was enlarged, and so it was thought to be a miasmatic fever. The change in type, the extreme exhaustion and the emaciation caused this idea to be abandoned. Until death it was obscure. A sufficient cause for the temperature range was found at the autopsy in a suppurative inflammation of the bile ducts, and the healthy portion of a gall-bladder, the remainder of which was the seat of carcinoma One can see now that more stress should have been laid on the occasional vomiting, the slight hepatic tenderness, the previous history of biliary colic, the persistent and deepening jaundice, and the great emaciation, and thereby a diagnosis been made between miasmatic fever and suppurative fever.

Here will briefly be recorded two cases illustrative of the fever of hepatic origin, not because of the difficulty in their recognition, but because one of them, the first, had been treated for malaria.

* Path. Soc., Trans., Phila., 1881.

This one was the case of M. Mc., æt. 50, who suffered at irregular intervals, often repeatedly in a week, with attacks of severe pain in the epigastrium accompanied by a chill and followed immediately by fever and sweat, and in a fews days by jaundice. He died several months afterwards in the writer's care, of obstructive jaundice from impacted calculus, after two of these attacks in succession.

When these attacks occurred, every day or every second day, it can be readily seen how a mistake in diagnosis could have been made. Attention to details, however, with the therapeutic test would have been good aid. The paroxysms, by the way, were no doubt due to the irritation of the discharging calculus. The other case was that of an impacted, possibly ulcerating biliary calculus. The history of the case, the jaundice and the local inflammatory changes prevented one from erring.

In addition to the preceding examples of paroxysmal fever, a series of cases will be adverted to which Murchison has not referred to in his lectures, and with the nature of which it is of the utmost importance to be perfectly familiar. Reference is made to catarrhal inflammations of pulmonary, the gastro-intestinal, and the genito-urinary mucous membranes, with secondary intermitting fever resulting therefrom. Especially important is it, for unless the fever is traced to its source, grave organic mischief will become so pronounced as to lead to disastrous consequences. Witness a phthisis following an overlooked bronchial catarrh.

It savors much of the teachings of Broussais, to say that catarrhs are the source of fevers, but there is no doubt that just so far as the philosophic Frenchman erred in that extreme, so do we at the present day err in the other, by attributing most fevers to a zymotic process. Prof. Pepper,* in a timely and instructive address, calls attention to these dangers: That fever is too often considered as due to a zymosis; that zymotic diseases are of self-limited duration; hence that active treatment is of no avail and especially that the accompanying catarrhs are neglected. Further, on account of these beliefs, the catarrhal process that is often the cause of a fever is overlooked, and thus the commencement of serious local disease is not thwarted.

Reference was made, in another portion of the paper, to the frequency of assuming early tubercular disease of the lung accompanied by intermitting fever, to be due to a miasmatic fever. The following notes illustrate the clinical course of some cases of catarrhal disease of the air passages, which often are the forerunner of so-called catarrhal phthisis. Other examples have been noted, in which there has

* On some of the relations of catarrhal affections. Trans. Am. Med. Assoc., 1881.

been only slight catarrhs, without hemorrhage, much cough or emaciation, with attendant fever, occurring in paroxysms.

One of the most typical cases of paroxysmal catarrhal fever came under observation in August, 1880, and was the first to lead to the investigation of this question.

A man, 40 years old, of previous good health and habits, of good family history, and residing in a healthy neighborhood, sought advice for "chills." Daily at 11 A. M. he would have a chill, followed by fever and sweat. The entire paroxysm continued until 6 P. M. His digestion was impaired, and his bowels were constipated. The usual treatment was employed. He reported twice that the chills had ceased to return at once when the medicine was finished. He also reported that his sweats continued throughout the night, and that he was losing flesh and strength. At the third visit he was much dissatisfied, for a former slight cough had grown more pronounced, he had bloody mucous expectoration, and the chills continued. Upon careful examination a distinct area of consolidation at the root of the right lung with attending blowing breathing, and some sub-crepitant rales were found. Active treatment was determined upon, and in six weeks the patient was cured. He has followed his occupation ever since (engineer), is heavier than he ever was, and in perfect health.

Further: A young miss of 20 years, the past winter, was conducted through an attack similar in many respects. Originating in a severe cold, with harassing cough, chest pain, no expectoration and with loss of appetite, nausea and constipation; she lost flesh, and had, the first two weeks of her illness, daily morning chilliness, fever in the afternoon (102), followed by an exhaustive sweat. During this time the physical signs of a bronchitis were present, with marked localization of the inflammatory process at the right apex. A day of undue exposure and exertion was followed by a severe chill and rapid rise in temperature, with distinct evidence of catarrhal pneumonia at the location indicated above. Chills and fever daily, profuse sweats, emaciation and gastric derangement were prominent for two weeks. The former symptoms then subsided, but it was fully two months before the lung cleared up, and the patient gained flesh and strength. The family and friends constantly reiterated their opinion that the attack was primarily malarial.

Probably the most difficult, the most occult form of paroxysmal fever of catarrhal origin to recognize, is the one due to that lesion of the intestinal tract. There are no physical signs to betray it, and generally the intestinal derangement is considered secondary to the febrile process. It seems impossible to distinguish the specific from the catarrhal form, save by the presence or absence of the enlarged spleen, the change in the urine of malarial subjects and of the blood when the malaria is chronic, especially when a recent writer tells us that epigastric pain, vomiting and constipation are symptomatic of malaria in children. The following record is a typical illustration of this variety, and is a most instructive and pertinent case:—

E. M., æt. 5. Inherits a tubercular diathesis from mother. During November and December of 1881 had no appetite, was obstinately constipated, and los flesh. She became delicate and puny-looking. The latter part of December she was seen on account of the above symptoms and of an irregular fever. The course of the fever was at first difficult to determine, but finally it was found to be distinctly intermittent. She was visited at various hours of the day, and found that at 11 A. M., daily, she would be cold, shivering, and begging for extra covering. Her extremities, nose and ears would be very cold, her lips bluish, and the features pinched. At the same time the pulse would be rapid and the temperature in the mouth 102. In a half hour the exterior warmed, and very soon she would have high fever, the temperature rising to 103–103½. The febrile stage lasted three or four hours, and was not followed by profuse perspiration. Save being weak and without appetite, by night she would be perfectly well. Quinia was given in continuous doses at first, afterwards in doses to anticipate the paroxysm; but without any good effect. The paroxysms were lessened in severity only while the already poor appetite was made poorer and the digestion more impaired; for two weeks an anti-periodic treatment was continued, and at the same time laxatives were used to overcome the constipation; at this time (January, 1882) she was thin and worn, the paroxysms of fever were daily, the appetite was very poor, the breath offensive, the tongue covered on the dorsum with a yellow-white fur, pointed, and with no papillæ; vomiting occasionally occurred, and always some pain after eating; the bowels remained obstinately constipated. It seemed to me, after a time, the fever was a secondary matter, that the gastro-intestinal disorder was primary, and that such disorder was subordinate to the diathetic constitution. Hence she was placed on small doses (⅛ gr.) calomel with bicarb. of soda (5 grs.) every three hours. In three days cod liver oil with syr. of the hypophosphite of lime was added to the treatment. At once she began to improve; her appetite first, then her bowels became more regular. In two weeks the child rapidly improved under this treatment, after being treated previously for more than two weeks for malaria. It may be added here that twice or three times E. became constipated with similar febrile symptoms as noted above, and that the parents, without my advice, cured her with the cod liver oil mixture.

A case very similar to the above was also seen. It is useless to report the details of the case; remedies directed to the gastro-intestinal catarrh, with accompanying intermitting fever, effected the cure.

A case of stricture of the pylorus, in its course, at one time presented daily chills and fever. Quinia did not control the paroxysms. During the time of the fever, and for a week afterwards, the stools of the patient were composed of mucous or membranous casts of the intestinal canal or of a pultaceous mucoid discharge.

These cases incontestably prove the proposition that intermitting fever is often due to catarrhal inflammation of the intestines, and that remedies directed to this locality alone will cure the disease.

This clinical record will be closed by the report of an observation of a case, the nature of which is somewhat obscure. It is not given, therefore, without some misgiving. It appears that the only title that could be applied to it would be paroxysmal fever of neurotic or hysteroidal origin.

The patient was 25 years old, of a rheumatic diathesis and nervous temperament. She presented a history

of "chills and fever," recurring at irregular intervals for two years. The paroxysms were of the quotidian type and the attacks lasted one or two weeks. Considered to be malarious; quinia or cinchonia was always given by her attendant, and the usual remedies for malarial toxæmia used, without cutting short or preventing the attacks. The writer attended her through two attacks. They were of the following nature: Preceded by dyspeptic symptoms for a few days, a violent chill attended the onset of the attack, accompanied by severe headache, with tender spots and one or more localized points of pain in the body. In one of the attacks the pain with the first chill was fixed at the end of the spine with exquisite tenderness; in another it was in the epigastrium. The chill was an hour in length and followed by fever. With the fever the face would flush, the eyes "burn," and the skin be hot and dry. The temperature would rise to 103 or more, the pulse be full, bounding, rapid. Evidences of gastric catarrh with constipation were also noted. During the paroxysm the most pronounced emotional disturbances were manifest, so that had fever been absent it would have been without difficulty considered a case of hysteria. A sweating stage of two hours followed the fever.

The paroxysms recurred daily for a week, but with the repetition of each one the pain would be seated in another portion of the body—in the occiput, the shoulder, or the knee-joints—while the emotional disturbances would be also present. The pain was described as unbearable, and could not be influenced by almost incredible doses of the usual anodynes. Quinia was given in enormous doses in the first attack, without any beneficial influence.

The fact that the paroxysms occurred towards night and that they were accompanied by hysterical symptoms of a high degree, the inutility of quinia and the absence of enlarged spleen rendered the opinion that the case was of neurotic origin, probable.

The second attack was very similar. Vomiting was, however, a more persistent symptom. The duration was about one week, and it appeared to yield to remedies addressed to the hysteria and the gastric irritability. The whole tenor of the patient's life has changed since then, so that for two years she has not had a return of the supposed malaria, notwithstanding she is exposed to the same malarious influences.

Time will not permit a review of the various affections in detail, in order to establish a differential diagnosis between these simulative disorders and a true intermittent. Any attempt at a positive diagnosis of paroxysmal fever, however, should not be made without keeping in mind the following proposition: In the first place, one would say that given a case with a chill and fever, a diagnosis of intermittent ought not be made from the nature of the first paroxysm, unless it be vital to do so, as in a pernicious intermittent. Then, if such a case is presented that yields but partially to anti-periodics, they should be discontinued and a fresh start in the diagnostic inquiry taken.

In order to fully establish a diagnosis a careful study of the antecedents of the patient should be made relative to previous health, habits, place of residence, and family history. Then, in favor of malarious intermittent, we should, after this study, expect a morning hour for the chill (Flint), the well-known changes in the composition of the urine, and if chronic, the enlarged spleen and the pigment granules in the blood. If with one or more of these favorable factors present we could exclude all possible source of organic disease, by an examination of each individual organ, the blood (leukæmia), the eye ground (tuberculosis), the lungs, liver and gastro-intestinal tract, we would be warranted in the diagnosis of malarial intermittent.

It seems, further, to be of value to note that emaciation of a high degree is more common in non-malarious intermittents.

The same may be said of exhaustion. The latter occurs to a certain degree, and is attended with a pronounced anæmia, so easily recognized as of malarial origin. Then, too, a long sweating stage and a low febrile range rather disprove the presence of the malarious influence.

Enlargement of the spleen is not to be considered, in acute intermittents, as of little moment. In a series of twelve cases of intermittent in children, eight presented the enlargement, which had subsided a year after the first examination.

There is but little doubt that fever is of neurotic origin, and the examples which have been recorded to-night more aptly illustrate this cause than any other class of cases. The profession is so thoroughly imbued, however, with the idea of no fever, unless a zymosis or blood-poisoning, that it is of practical value to refer to the mechanism of fever briefly. As shown by others, disastrous results ofttimes ensue by addressing means to the cure of a zymosis, or by passively allowing a febrile process to continue its supposed self-limited course, when actually a zymosis was not present, and remedies otherwise applied would have been beneficial. The reference to the mechanism, therefore, is to show that often fever is of a reflex origin due to peripheral irritation—a neurosis.

The element of intermittency itself is a powerful argument in favor of its neurosal origin. This is not the time to engage in philosophical speculation, or to demonstrate the relation of the fundamental principle of the rhythm of motion so grandly elaborated by Spencer; suffice it to say that to no other set of tissues or systems could we look but the nervous system for an explanation of intermittency. Aside from this, however, in the masterly study in morbid and normal physiology by Wood, on the mechanism of fever, we find sufficient argument and proof "that a depressing poison or a depressing peripheral irritation acting upon the nervous system which regulates the production and dissipation of animal heat," causes fever.

Among the illustrations presented to-night, there are some which strongly indicate the

reflex origin of fever from peripheral irritation; witness the case of vesical calculus or of gall-stone. By what other supposition could the phenomena be explained? Likewise, though with an element of doubt intermingled, in the cases of gastro-intestinal catarrh, the fever may be considered as due to reflex processes. In the other cases the fever is, no doubt, due to the absorption of a poison which acts upon the nervous system, and as opposed to Charcot and Billroth, one would think that the phenomena of intermittency is due not to paroxysmal discharges of pus or poison into the blood, but to rhythmical responses of the nervous system to a constantly-acting poisoned blood.

3705 Powelton Avenue.

Abstracts of Papers.

THE TREATMENT OF TYPHOID FEVER.

BY DR. S. K. JACKSON, OF NORFOLK, VA.

(Abstract of Papers, presented to the Section on Practice of Medicine at the Recent Meeting of the American Medical Association.)

The author contended that the discussion of this subject, though trite and hackneyed, could not be considered as finished until there was a better agreement among physicians as to the treatment of this disease, or until the mortality occasioned by it was much reduced.

The object of the paper was to point out a line of treatment suggested by a recognition of some pathological conditions long since known to exist, but which had been ignored in looking for indications for treatment. That these conditions have been overlooked is evidenced by the many and conflicting modes of treatment that have at different times been proposed, means not only not called for, but actually injurious. Some of these were enumerated to show that the pathology of the disease could never have suggested them. While all this conflict was being urged, the doctor declared that he had been pursuing one plan of treatment for 35 years, from which he had no reason to deviate, and that it did not contain one of the long list of means to which he had previously referred and which are generally employed in the treatment of this disease. He was reluctant to state the result of that treatment, but left each one to determine its value for himself.

Among the first and most prominent pathological conditions which had attracted the attention of the author was the nitrogenous waste, the diminution of fibrine, the deficiency of urea and of all the nitrogenous excretions. The fact that they are not excreted is no proof that they are retained in the system, for if they were, there would be signs of uræmic poisoning, which no one claims to have seen. They are not excreted, because there are none to be thrown off. One cause of this nitrogenous deficiency is the inability to digest nitrogenous food, which is owing to the absence of the digestive fluid, and this cannot be secreted because of the congested and inflamed condition of the glands and glandular follicles whose duty it is to secrete these juices. Another possible, if not probable cause, is the consumption of nitrogen by the parasitic organism, which is the acknowledged etiological factor in the production of enteric fever. That the parasite is a nitrogen-feeder, is proved by the fact that it lives and thrives in nitrogenous matters, in urea and all nitrogenous excreta. Old logs, rotten wood and leaf-mould, saturated with these excretions, have been known to be fruitful sources of this fever. If further proof be needed, it is found in the ammoniacal exhalation from a typhoid fever patient—from his breath, his skin and his urine. These exhalations are undoubtedly due to the decomposition of the nitrogenous constituents caused by this micro-organism.

This pathological condition furnishes the most important indication in the treatment of this disease. As this nitrogenous waste cannot be supplied by nitrogenous food, the author knew no way of accomplishing this object but by the free administration of ammonia, even to saturation. Fortunately this nitrogenous base furnishes us with salts of such different therapeutical powers as to enable us to select any one suited to any stage of the disease and to any condition of the system. We have in the nitrate of that base the most sedative salt that we possess, and in the carbonate the most stimulating salt of the materia medica. The nitrate of ammonia is capable of reducing the typhoid fever heat down to 102° F., and of keeping it there. As this is not a dangerous degree, the patient is safe so long as it can be maintained. Ten or twelve grains of the salt every two hours are sufficient for this purpose.

As the disease progresses, and there is

less need for a sedative, or if diarrhœa supervenes, the acetate of ammonia is substituted for the nitrate and acetate of lead and opium are at the same time administered.

If nervous symptoms show themselves with a failure of the vital powers, the carbonate of ammonia in combination with potassium chlorate is resorted to; but if coma develops, recourse is had to the hydrochlorate of ammonia, generally in five grain doses, every two hours. The effect of this is magical. The doctor stated that he had never seen coma in a case which had been treated from the beginning with this ammoniacal course and had only seen it in badly nursed cases, or in those treated by other means.

He considered the delirium of typhoid fever to be due to deficient nourishment, a delirium of starvation. It never fails to become quieted in a few hours after the free administration of ammonia. Wandering sometimes occurs if the dose is too small or the intervals between are too long. Patients sometimes ask to have the interval shortened on account of a confusion of intellect, which appears when the dose has been postponed too long.

For tympanites, turpentine is used by enema or by the mouth.

The pathological condition contended by some to exist in, and be the cause of coma, is a thickened condition of the envelopes of the blood corpuscles, on account of which the brain fails to be nourished, even though the blood contains the normal amount of nourishment. This condition suggested the hydrochlorate of ammonia as a solvent for the thickened envelope; but whether this be its *modus operandi* or not, its effect is almost miraculous. Thus it will be seen that there is no stage of the disease in which one or other salt of ammonia is not used.

Why should cold baths and cold affusions be used when the temperature can be reduced by simpler and safer means and without the danger of reaction? The author long since abandoned quinine as not being the proper germicide for the typhoid-fever parasite. It is, however, the antidote *par excellence* for the malarial poison, but as the typhoid-fever producing organism differs so essentially from that of malarial fever, it could not be expected that the same agent would destroy both. The parasite of malarial fever is a carbon-feeder, and that highly carbonaceous medicament, quinine, might be expected to be the best agent for destroying it, in accordance with the law (for which the doctor has been contending), viz., "that no organism can live in its own excreta, in the results of its life processes." If carbonic acid gas be thrown off as the excretory product of a life process, a saturation of that gas will check the process and destroy the life. If alcohol be the result, then alcohol is the proper agent to destroy the organism causing it. If sulphuretted hydrogen be evolved, then the compounds of sulphur are the most efficient means of checking the process. So then when ammonia is the excretory product, as in typhoid fever, ammonia as has been shown, is the most efficient germicide. This furnishes us with an additional reason for employing the salts of ammonia, for this nitrogenous base not only supplies the nitrogenous waste but also destroys the vitality of the organism which causes it.

If this be a law, instead of accounting for the protection of the system against a second attack of contagious zymotic diseases by supposing that it is due to exhaustion of the pabulum necessary for the support of the parasite, why not attribute it to the infusion into the system of some excretory product which forever acts as a poison to the parasitic organism. This is the most probable explanation.

With regard to the period of this fever. If it is recognized as early as the third day, it may subside at the end of the first septenary, but if not recognized before the fourth or fifth day it cannot break before the end of the second septenary, but may at that time. If the treatment has not been inaugurated before the beginning of the second septenary the fever cannot be made to yield before the end of the third septenary (the 21st day). That it will yield on that day is almost an absolute certainty.

With regard to the diet, nothing is allowed but milk. Farinaceous preparations are never admissible. They cannot be digested for want of the fluids containing diastaste. There cannot be any conversion of amylaceous food into dextrine or grape sugar, so then starchy food cannot be assimilated. If administered, they undergo a fermentation which adds to the gaseous distension and greatly complicates the case.

Animal broths are never allowed until the later stages of the disease, or until there are signs of the secretion of the digestive fluids.

In conclusion the doctor said, "The limited time allowed for this paper has compelled merely an outline of a subject which

deserves full discussion. It is left to the profession to test the value of the treatment which has been detailed."

Irregular Apoplectic Attacks from Other Causes than Hemorrhage or Embolism. Read by Gaspar Griswold, M.D., M.R.C.S., New York City.

The term apoplexy is used in this paper to denote the sudden onset of a train of symptoms in which unconsciousness, hemiplegia and convulsions are more or less prominent without any reference to the cause of the symptoms.

Pathology has taught us the dependence of apoplexy upon cerebral hemorrhage, embolism and thombosis and has enabled us to distinguish between them with considerable accuracy. We know that unconsciousness is most profound in cerebral hemorrhage; that consciousness may be preserved in embolism, even when hemiplegia is well marked, and that in meningeal hemorrhage, we may have coma and convulsions with illy-defined hemiplegia. Post mortem examinations have placed the study of organic brain disease upon a very satisfactory basis. Post-mortem examinations can not help us much in the study of functional disturbances of the cerebral circulation, for it is generally impossible at autopsies, to decide whether the brain was anæmic or hyperæmic just before death. Moreover, cases of functional disturbance of the cerebral circulation, even when sufficiently severe to cause most alarming symptoms rarely terminate fatally. We are obliged, therefore, to depend upon examinations in intra-cranial blood supply. We find that anæmia of the brain causes coma and convulsions, and that heart-failure or vaso-motor nerve disturbance may cause anæmia of the brain.

Hence we see all varieties of symptoms attending functional circulatory disturbances, varying in degree from the lightest shades of vertigo to the profoundest coma. The symptoms of cerebral hemorrhage, embolism and thrombosis, are mainly due to disturbance of the cerebral circulation which they produce, in hemorrhage by the presence of the clot, in embolism and thrombosis by occluding the vessels of supply. It is not strange, therefore, that very similar symptoms should be present when similar disturbances of circulation are produced by heart failure, or when the vaso-motor nerves, cause the vessels of supply to contract. A striking difference is apparent, however, when we contrast the persistence of symptoms dependent upon organic disease with the rapid disappearance of those produced by mere functional irregularities. Cases are occasionally met with where coma, convulsions or hemiplegia, due to mere functional disturbance, for some hours so closely resemble the same conditions dependent on organic disease, that the deception is almost beyond detection. In the early stages a mistake is almost unavoidable, and the recovery of the patient is the first thing generally which points the way to a correct diagnosis.

The subject was further discussed in connection with the histories of four cases, in all of which an erroneous diagnosis was made at first, either by the author or by some physician called in accidentally at the time of the attack. In all these cases, a distinct apoplectic attack occurred, and yet in all, the rapid recovery from alarming symptoms almost absolutely precludes the possibility of organic disease.

Review of the Germ Theory of Disease. By Dr. O. H. Marcy, of Boston. Dr. M. contributed a long and exhaustive review upon the subject of the relation of micro-organisms to disease, including a report of his own laboratory work, culture, inoculating experiments, etc. These were undertaken in a considerable degree in order to establish the truth or falsity of certain criticisms which had arisen from various sources, notably from the Philadelphia school, as to the possible action of the so-called liquid ambient-matter, protoplasmic matter or bioplasm of Beale. It had been asserted that not until a well washed micrococcus or bacillus had been placed in a sterilized nutrient fluid, could it be determined what was due to the germ and what was due to the liquid ambient matter with which it was inseparable.

Dr. Marcy had taken the bioplastic matter under the most favorable circumstances, conditions for the exhibition of its inherent vital powers as found in blood serum, aseptically taken from healthy animals, the white of egg, yet warm from the nest, milk directly from the cow, and the like, and in a series of about fifty tests, varying in character, sought to determine its possible germinal qualities. As might have been assumed, the entire series resulted in the failure to establish any evidence that this material so highly organized, possessed any independent germinal power, serving only as a highly organized nutrient fluid.

The objections of Dr. Longstreth, and others, as to the rôle of the liquid ambient-matter, had indeed, in a negative way, been satisfactorily answered before, since a number of experiments had been most carefully made by competent authorities, in filtering the germ-bearing fluids of anthrax and injecting the filtrate freed from germs with, only at the most, local poisoning, never reproducing the disease.

Dr. Marcy admitted that there were many questions of the relationship of germs to disease to which no definite answer could be given, but gave as his opinion that too much

evidence had been adduced to allow of the subject to be considered as of other than of the greatest interest and importance. To establish the causal relationship of germs to disease, the organisms must be separated from other material and proved upon innoculation to produce the given disease. The method as yet attained, best calculated to serve in freeing the micro-organisms from accompanying contaminating material is the so-called culture test, and, if the liquid ambient matter did not as he has shown, itself reproduce, by this method the growing organisms in a few generations were free from contamination, for in the geometric series 1-100, which is ample to serve as inoculative material, the second bulb would only contain one-ten-thousandth of the original injection, the third one-millionth, and so on *ad infinitum*.

Pasteur had carried the series to the hundreth culture only to find the last as virulent as the first. Koch, in his experiment upon septicæmia in mice, to the fiftieth reproduction and showed that not only did it "breed true," but as a rule, the tenth of a drop was ample quantity to produce a fatal result. There can be no escape from the conclusion that the poison is particulate, is vital and its virulence is due to the rapid growth or reproduction within the animal economy.

The methods by which these results were obtained were discussed and shown to be various, sometimes occluding mechanically the blood vessels, deoxidizing the blood, producing by its growth a morbific poison, again, pro ducing chemical changes and so on. Emphasis was made on the vital conditions of the individual subject to the attack and evidence adduced to show that the conditions favorable were ever of a debilitating character.

Dr. Marcy followed with a review of the individualistic character of the entire group of zymotic diseases. Emphasis was especially made upon the consideration of tubercle, diphtheria and erysipelas. Upon the last, a series of interesting original investigations were given, including a number of culture tests, inoculation experiments, etc. The review was made in a spirit of judicial fairness, without personal bias, and the paper as a contribution upon one of the most interesting questions in the entire range of medicine will prove of exceptional value.

It is said the Alumni Association of Jefferson Medical College, Philadelphia, will found a professorship of pathological anatomy, in memory of the late Dr. S. D. Gross, and that the American Medical Association will erect his statue either in Philadelphia or Washington.

Society Reports.

REPORT OF THE AMERICAN MEDICAL ASSOCIATION.

HELD IN WASHINGTON, D. C., MAY 6 AND 9.

(Continued from page 37.)

(*Specially reported for the Maryland Medical Journal.*)

THIRD DAY.

The meeting was called to order by the President at 10 A. M.

Vacancies in the Board of Trustees were filled by appointment by the President as follows: Dr. E. D. Ferguson, of New York; Dr. W. T. Briggs, of Tennessee; Dr. J. E. Reeves, of West Virginia; Dr. J. W. Prewitt and Dr. George Peck, of the navy; and Dr. D. A. Starmont, of Kansas.

The committee appointed to urge the provision of commodious and fire-proof buildings for the Army Medical Museum and the Library of the Surgeon-General's Office, reported that a memorial to Congress recommending that $5,000 be appropriated for the improvement of the museum had not been acted upon in the committee of Congress; but that the committee had reported favorably to an appropriation of $10,000 for the library.

Dr. George M. Sternberg offered the following resolution:

Resolved, That we earnestly petition the Congress of the United States to make suitable appropriations for the prosecution of scientific researches relating to the causes and prevention of the infectious diseases of the human race, to be expended under the direction of the National Board of Health; and that a permanent detail of one medical officer of the army and one of the navy be authorized for the prosecution of researches of this nature.

Resolved, That a committee of five members of this association be appointed to present copies of these resolutions to the Speaker of the House of Representatives, to the President of the Senate, and to the chairmen of the Committees on Public Health of the House and of the Senate.

The resolutions were adopted, and the President appointed the following-named gentlemen to constitute the committee: Dr. Sternberg (Chairman), Dr. Albert L. Gihon, Dr. I. M. Hays, Dr. J. C. Dalton and Dr. J. E. Reeves.

THE SPECIAL COMMITTEE ON THE PRESIDENT'S ADDRESS.

Dr. Billings, the chairman, read a report, and offered resolutions to the effect that a committee of seven, of which Dr. Austin Flint, Sr., should be a member, be appointed by the President, whose duty it should be to extend, in behalf of the medical profession of the United States, to the International Medical Congress about to meet at Copenhagen, a cordial invitation to appoint the next meeting of the International Congress at Washington, for the year 1887, also, that the committee should have power to elect its own officers and an executive committee to make suitable arrangements for the congress; the committee to have power to increase its number, and to draw upon the association for a sum not exceeding five hundred dollars. Adopted.

The Chairman of the Board of Trustees of the Association's Journal, Dr. J. M. Toner, of Washington, read a report which recounted at some length the financial condition of the association during several years past, and the steps that had been taken toward founding a weekly journal. The Treasurer's report was also included. It was believed that at the end of the year there would remain in the treasury, over and above expenses, including the editor's salary, five hundred dollars. It was thought that the rule relating to advertising in the journal, which had been strictly adhered to, had lessened the receipts.

The Editor's Report, made by Dr. N. S. Davis, stated that calculations had at first been made on the basis of 2,500 subscribers, but that the actual circulation had been 3,436, of which 3,271 were among members and subscribers. The advertising had been slowly increasing, and the whole amount received from this source was estimated at $3,000. The total income for the year had been $18,547.50; and after all expenses had been paid, it was thought there would remain a balance of $500 at the end of the year.

Dr. Toner stated that the journal had been conducted with economy, ability and judgment, the best interests of the profession being kept in view, and its dignity maintained with rare discretion; and it was confidently expected that the experience gained during the past year would enable the editor to greatly improve the journal. Dr. Toner read a letter from Dr. Davis, received in April last, offering his resignation as the editor of the journal at the end of the quarter, because he wished to be relieved of an onerous amount of labor on the one hand, and, on the other because he desired to free the board from all personal considerations connected with questions of future policy. The members of the board, with but one dissenting voice, had requested Dr. Davis to continue in the editorship for another year, and Dr. Davis had replied that the same motives which had led him to yield to the wishes of the board when it first requested him to accept the editorship would lead him to comply with their request again, but that he positively could not serve longer than the year.

Dr. Packard, of Pennsylvania, offered a minority report. In his opinion, the journal did not approach in any way to the standard which the organ of the American Medical Association should reach. The object of such a journal should be not simply to spread out the minutes of the Association over one year—it should be a wide-awake, high-toned periodical in every respect, and not a sectional or partisan organ of the Association. Such a journal could be carried on only by a thoroughly trained corps of editors, and at a place where there was access to medical libraries, and where the best auxiliary work could be obtained, such work being liberally paid for. He therefore recommended that the resignation of Dr. Davis as editor be accepted, and that the publication of the journal be transferred to some eastern city, Washington, Philadelphia, or New York.

A motion was made that the minority report be laid upon the table. Carried—ayes, 191; nays, 74. A motion to adopt the majority report was then put and carried.

OFFICERS FOR THE ENSUING YEAR.

The Committee on Nominations reported as follows through its chairman Dr. Hooper: *President*, Henry F. Campbell, of Georgia; *First Vice-President*, J. S. Lynch, of Maryland; *Second Vice-President*, S. D. Mercer, of Nebraska; *Third Vice-President*, J. W. Parsons, of New Hampshire; *Fourth Vice-President*, H. C. Ghent, of Texas. The next meeting to be held in New Orleans, beginning the last Tuesday in April, 1885. *Members of the Judicial Council:* J. K.

Bartlett, of Wisconsin; J. H. Murphy, of Minnesota; J. M. Toner, of the District of Columbia; William Brodie, of Michigan; H. D. Holton, of Vermont; A. B. Sloan, of Missouri; —— Ulrich, of Pennsylvania; and W. M. Beach, of Ohio. *Secretary*, W. B. Atkinson, of Pennsylvania; *Assistant Secretary*, W. H. Watkins, of Louisiana; *Treasurer*, R. J. Dunglison, of Pennsylvania; *Librarian*, W. K. Kleinschmidt, of the District of Columbia. *Chairmen and Secretaries of Sections: Medicine*, H. D. Didama, N. Y., G. M. Garland, Mass.; *Obstetrics*, R. S. Sutton, Pa., J. T. Jelks, Ark.; *Opthalmology and Otology*, J. A White, Va., Eugene Smith, Mich.; *Surgery and Anatomy*, Duncan Eve, Tenn., C. B. King, Pa; *Diseases of Chilaren*, J. L. Pape, Tex., S. S. Adams, D. C.; *State Medicine*, E. W. Schauffler, Kan., J. N. McCormick, Ky.; *Oral and Dental Surgery*, A. W. Harlan, Ill., J E, Mears, Pa. *Trustees of the Journal:* H. F. Campbell, Ga., J. H. Packard, Pa., L. Connor, Mich. *Chairman of the Committee on Necrology*, J. M. Toner, D. C. *Chairman of the Committee on State Medicine*, J. A. Dibrell, Sr., Ark.

Dr. N. S. Davis, Chairman of the Committee on Meteorological Conditions and their Relations to the Prevalence of Acute Diseases, read a report, which was accepted, with a recommendation for its publication in the journal.

FRIDAY—FOURTH DAY.

The meeting was called to order by the President.

Dr. Dalton, of New York, Chairman of the Committee Regarding Experimentation on Animals, offered the following:

Resolved, That this Association desires to express its earnest conviction that experimentation on animals is most useful to promote medical science, and can be instrusted only to members of the medical profession.

Resolved, That the Committee be continued. Carried.

A question arose whether nominations to fill vacancies in the Board of Trustees should be filled by the special committee on the trustees or by the general nominating committee.

Dr. Grissom made a motion declaring it to be the sense of the meeting that the trustees should be nominated by the nominating committee. Carried.

The Committee on the President's Address reported, through *Dr. Davis*, its Chairman, that no explanation regarding the code should be made without deliberation. Dr. Davis personally offered the following:

Whereas, Persistent misrepsentations have been and are being made concerning certain provisions of the Code of Ethics.

Resolved, That the President appoint a committee of five permanent members, to report at the next meeting of the Association such explanatory declarations on the subject as the committee may deem proper. Carried.

Committee on Nominations changed the officers of the section on oral and dental surgery to *W. W. Allport*, President, and *E. C. Briggs*, Secretary.

THE INTERNATIONAL MEDICAL CONGRESS — The permanent Committee on the International Medical Congress was appointed as follows: Austin Flint, of New York. I. Minis Hays, of Philadelphia; C. Johnston, of Baltimore; L. A. Sayre, of New York; G. J. Engelmann, of St. Louis; J. M. Browne and J. S. Billings, of Washington, D. C., and H. F. Campbell, of Augusta, Ga.

MEDICAL EDUCATION.—*Dr. von Klein*, of Ohio, gave notice of proposed amendments to the by-laws, and offered the following resolutions:

Resolved, That no person who shall hereafter graduate from a college where an educational test is not a prerequisite to admission shall be a delegate to the Association.

Resolved, That all delegates shall present as a part of their credentials a certificate, from the county or State society they represent, showing from what college and when they graduated, excepting delegates from the army and navy.

OFFICERS OF SECTIONS.—*Dr. Pratt*, of Michigan, proposed an amendment providing that each section should nominate its own chairman and secretary.

Dr. Robertson moved resolutions urging Congress to provide for the Museum of Hygiene. Carried.

The Chairman of the Section in Ophthalmology and Otology, Diseases of Children, and Oral and Dental Surgery read their addresses by title, and they were referred to the Publication Committee.

Dr. Toner, of the Committee on Necrology, reported that the notices of deceased members had been published during the year.

On motion, the secretaries of sections were allowed to report directly to the permanent secretary.

Dr. Seiler proposed an amendment to divide his section into two, namely: 1. Ophthalmology; 2. Otology, laryngology, and rhinology.

The Treasurer's Report showed a balance of $2,212. On motion, the annual dues were continued at five dollars.

The Librarian's Report was read in part.

Dr. Green, of Buffalo, offered resolutions urging Congress to provide for the completion of the third volume of the "Medical and Surgical History of the War of the Rebellion," and to issue a new edition of the entire work at cost. Adopted.

Dr. Beach offered a resolution urging Congrees to take action to exterminate pleuropneumonia among cattle. Adopted.

The President-elect, *Dr. H. F. Campbell*, was introduced by the President, and made appropriate remaks.

On motion of *Dr. Brodie*, it was resolved that the trustees of the journal secure a stenographer at each meeting.

Resolutions were received from the West Philadelphia Medical Society condemning the efforts of mercenary men to destroy the code of ethics. The resolutions were referred to the Judicial Council.

Resolutions urging legislation to compel the labeling of chlorate of potash and other like articles as poisons were adopted.

Resolutions from the St. Louis Medical Society, against advertising one's relations with a medical college, were referred to the Judicial Council.

Dr. Gihon offererred a resolution favoring the erection of a monument in Washington to the memery of Dr. Benjamin Rush; a committee of seven to be appointed by the President.

Dr. Brodie moved a vote of thanks in general to the people of Washington.

The *President* tendered his thanks for the kindness and forbearance shown him during the meeting.

The meeting then adjourned.

KOCH'S BACILLI IN SPUTUM.—In an article on "The Diagostic Value of the Discovery of Koch's Bacilli in Sputum," in the *Brit. Med. Journ.* for April 26, 1884, Henry S. Gabbett, M. D., M. R. C. P., reports the results of 110 examinations of the sputa in diseases of the chest. His conclusions are:

1. That Koch's bacilli occur in the sputa of pulmonary phthisis, acute and chronic, in all its forms.

2. That they do not occur in the sputa of other common diseases of the chest.

3. That they may probably be found in every case of phthisis which has advanced to the stage of breaking down of tissue.

4. That the discovery of very few bacilli in the sputum conveys no certain information as to the gravity of the case; their occurrence in enormous swarms in all probability denotes excavation.

Editorial.

AMERICAN MEDICAL ASSOCIATION JOURNAL.—The question as to a change in the location and management of this important enterprise was, we think, wisely decided at Washington in the negative. Not that the journal has met with our entire approval or that it has exhibited the excellence which we had the right to expect. On the very first appearance of it we had occasion to express our disappointment in very candid terms, and we will confess with equal frankness that it has not, up the present time, improved in any resonable or considerable degree. That a large part of the deficiency is to be attributed to its location, remote from the great medical centres of the country, and to the difficulties besetting the inception of such an enterprise, we cannot doubt, but no small portion is also, we believe, to be laid at the door of the editor. Upon him devolves mainly the responsibility for its character as it is presented to us.

Notwithstanding all that may be said in criticism and censure, however, we think it unwise to tamper too much with an enterprise so newly begun which is manifestly answering the wishes of a large number of the less exacting portion of the profession, especially in the West, and which has beyond doubt added to the revenue of the Association and left a surplus in the treasury. Whilst it is not the best that could be, it is infinitely better than the old transactions, which appeared once a year; it has offered a medium for the exchange of ideas of the American profession, and above all it has before it a great future. To have imperiled its existence, therefore, before it had reached the end of its first year by such radical changes and such increased expense as were contemplated by Dr. Packard's minority report would have been, it seems to us, ill-judged and possibly fatal. Besides such changes could not have been made at this time without great sacrifice, as the Board of Trustees had already (with remarkable prevision) entered into contract with the Chicago publishers for another year. Let us be satisfied with its present shortcomings knowing that it is gaining each year a stronger foundation and becoming better able to assume the leading rank to which it is entitled as the repsentative of the American profession.

THE FACULTY OF THE JOHNS HOPKINS MEDICAL SCHOOL.—A writer in the Baltimore *Sun*,—evidently a medical man—adverting to the question as to whether the members of the Faculty of the Johns Hopkins Medical School will be selected from among our home physicians or from specialists brought from abroad, lays stress upon the fact that the clin-

ical teachers must be men who are in the constant habit of handling disease in its various forms, i. e., they must be physicians in active practice. He refers of course to Baltimore physicians. That there will be a difficulty in procuring men of eminence from abroad who must naturally make great sacrifices in coming, cannot be questioned. If we are informed correctly this difficulty has already been experienced in filling the chair of Pathology, for which a foreign incumbent was sought ineffectually—a fortunate result, doubtless, since the School has thereby been able to secure Prof. Welsh, who is, perhaps, our best American Pathologist. It is not likely that the attractions, pecuniary or otherwise, which the University will be able to offer will be sufficient to induce men to give up large incomes and success already assured elsewhere. In this respect the decision of Prof. Bartholow in coming from Cincinnati to Philadelphia must be looked upon as exceptional, as the salary in Jefferson Medical College was extraordinary. The Trustees will then be compelled to select younger men who have given evidence of talent and promise or else to depend for their supply upon the home profession. Whilst we would not be so egotistic as to say that our own men are better than others, we can claim that there are several who are calculated to fill chairs anywhere. With due opportunity and stimulation their work will speak for itself. But it is not at all likely that any will have a chance who have not already given very clear evidence of their ability for original observation and research, and it is well for those who have aspirations to take warning and govern themselves accordingly.

Corrosive Sublimate in Obstetric Practice.—Since bichloride of mercury began to be used as a disinfectant in obstetric practice it has grown rapidly in popularity and favor. It is now largely employed in dilute solution as a germicide, and the reports published by different observers have been, until recently, most encouraging. The Germans have used the sublimate solution, perhaps, more extensively than any other people, and to their careful experience we are chiefly indebted for facts relating to the advantages and disadvantages of this disinfectant. Kehrer, of Heidelberg, in a paper read before the German Gynecological Society, discussed Koch's well-known experiments with bichloride of mercury, and pointed out the fact that Koch had had with no other disinfectant such results as with this one. His own experience had been most satisfactory. In the puerperium he believed the sublimate irrigation to be indispensable. He had first employed a solution of 1:2,000, but later used 1:4,000. Of 221 parturients in his institution there only appeared an eruption of urticaria in 4, which disappeared after 3 or 4 days. Only 1 parturient and 3 gynecological patients were attacked by stomatitis and 3 of these had taken mercury internally. Two-thirds of all parturients remained altogether free from fever; in the other third more or less intense fever supervened. On the other hand two-thirds of all parturients showed symptoms of fever before the introduction of the bichloride. Among the advantages of the sublimate solution Kehrer enumerated its cheapness as compared with carbolic acid, its ready solubility, and its odorlessness. Its disadvantages were stated to be light. It roughens the skin and also the vaginal mucosa. Since Kehrer's report some new facts have been published which show that the sublimate solution is not so harmless an agent as one might be induced to believe from his experience. Dr. M. Hofmeier, assistant to Prof. Schroeder, in Berlin, calls attention (*Amer. Jl. of Obstetrics and Dis. of Women and Children, May, 1884, p. 518*) to the possible danger of even weak solutions of corrosive sublimate, and, aside from a case observed in the Berlin clinic, relates an analagous case of fatal poisoning after the employment of this agent in the puerperium, by Stadtfeldt, of Copenhagen. The Berlin case was that of a puerpera, recently delivered, with complete rupture of the perineum; the rent was stitched up while the wound was irrigated with the sublimate solution 1:1,000. About the fifth or sixth day, the patient was attacked by moderate fever, with low pulse, and died on the twelfth day after a very fetid diarrhœa. The autopsy showed extensive gangrenous destruction of the entire mucous membrane of the large intestine, continuing into the ileum. Mercury was found in the tissues. In Stadtfeldt's case, a puerpera having some fever, was given on the fifth day after labor an intrauterine irrigation of sublimate solution 1:1,500. During the irrigation there was slight collapse, and five days later increased diarrhœa, vomiting and suppression of urine. The case died. The autopsy showed numerous ulcerations in the large intestine, besides parenchymatous nephritis. As Hofmeier says in concluding his report, these cases, in which a moderately concentrated solution of bichloride of mercury was employed, must certainly impress upon us the need of the greatest caution in its employment in the puerperal woman. Badlehner has observed that sublimate solutions of 1:4,000 for vaginal injections still produce some irritability. In view of the above experience it would be proper to use solutions of 1:10,000, which Badlehner thinks are sufficiently active.

Miscellany.

THE DIRECT TREATMENT OF SPINAL CARIES BY OPERATION.—Mr Fred. Treves, in a paper read before the Royal Medical and Chirurgical Society (*Brit. Medical Journal*, January, 1884, p. 58), proposes an operation, by which the anterior surfaces of the bodies of all the lumbar vertebræ, and also some of the dorsal, could be reached from the loin; so that, in cases of spinal caries, he mordid products, arising from the diseased one, could be prevented from travelling a long distance before an incision is made to evacuate them. A vertical incision near the outer edge of the erector spinæ, through the sheath of that muscle and the quadratus lumborum, then through the psoas muscle, will reach the bodies of the vertebra, so that they can be examined, and carious or necrosed bone removed, as well as affording direct exit to all morbid products. The author detailed three cases in which he had performed this operation with good results. A long discussion followed the reading of the paper, in which Mr. Furneaux Jordan and Mr. Noble Smith advocated mechanical fixing of the spine, a practice strongly protested against by the author.—*London Med. Record.*

HYSTERICAL AMBLYOPIA.—In a very interesting paper on thrombosis of the retinal artery, to which we have recently (p. 119) had occasion to allude, contributed to the *Opthalmic Review* (January and February, 1884), by Mr. Priestley Smith, some light is thrown on this subject. The case which we have already commented upon, was, it will be remembered, one where a young woman had already lost the sight of one eye, and was threatened with blindness in the other, from deficiency of blood supply to the retina associated with disease of the ovaries, and Mr. Priestley Smith points out that the impairment of vision in this patient's non-blind eye, bore the closest resemblance to what is found in cases of hysterical amblopia, or "neurasthenic amblyopia" to give it its full name. The physical signs of this condition may be said to be a contracted field of vision, venous congestion of the retina, and sometimes slight œdema of the disc, and Mr. Priestley Smith's contention is that this state is the expression of an impaired nutrition of the retina, not of a central disturbance.—*London Med. Times.*

TRANSPLANTATION OF HEALTHY SKIN IN LUPUS.—Hahn (*Monatsh fuer Prakt. Derm.*, No. 9, 1883), has scraped out lupus-tissue and transplanted healthy skin to the fresh wound in five cases, with good results. The patients were anæsthetized, and after the scraping was finished and the bleeding arrested (which sometimes did not occur until after several hours), the whole wound was covered by portions of skin about haif a centimétre long and a quarter centimétre broad, the portions consisting only of cutis and epidermis. Under iodoform bandage, complete union of the transplanted portions occurred mostly in from five to eight days. A year had elapsed since the treatment of the first case, the cure being so far permanent, and no relapse having occurred.—*Med. and Surg. Reporter.*

THE DONATIONS OF THE PHYSICIANS OF BALTIMORE TO THE PROFESSION.—Our esteemed contemporary, *The London Medical Times*, refers in the following facetious manner to Dr. Quinan's recent book, *Medical Annals:*

If the medical men of every considerable city should follow the example recently set by those of Baltimore, and commission one of their number to compile a bulky volume containing a chronology of events connected with the progress of medicine in their special city, and a biography of all the physicians who have practised therein, with a record of their literary contributions, etc., well, the number of crumpled rose-leaves in the bed of a medical editor would be considerably increased. Here and there such a volume may be tolerated, and if every city could find such a painstaking annalist as Baltimore was found in Dr. J. R. Quinan, the said medical editor might welcome such an addition to his labors, in view of the help which would concurrently be given to the medical historian of the future. But though every American city is said to regard itself as the hub of the universe, few could unroll such a blushing record of honors as Baltimore, the physicians of which were amongst the first to introduce inoculation and subsequently vaccination into America, the first in the world to establish a College of Dentistry, the first in the United States to advocate the practicability of ovariotomy, the first in the world to tie the common iliac artery (1812), and to successfully perform the Cæsarean operation twice in the same subject, with safety on both occasions to mother and child. Such are only a few of the "donations of Baltimore to the profession," and other less go-a-head cities may well hide their diminished heads.

ARTERITIS AS A SEQUELA OF ENTERIC FEVER.—An interesting communication on the above subject has been made to the *Revue de Medicine* (*vide* Nos. 1 and 2 for this year) by M. Barié. The conclusions at which he arrives may be summed up as follows:—

Acute arteritis after typhoid fever is especially liable to occur in the main arteries of the legs, and is generally uni-lateral. It comes on at the commencement of convalescence, just as the patient is beginning to walk again, and is as likely to follow a mild attack as a severe one. He makes out two forms, viz., acute obliterative arteritis, and acute parietal arteritis, but they differ only in degree. The former is the result of a cellular infiltration of all the coats of the artery with a roughened state of the lining membrane; this is followed by the formation of a thrombus firmly adherent to the walls. If the obstruction is complete and there are no anastomoses, dry gangrene speedily makes its appearance. The chief symptoms and signs are pain along the course of the arteries, sometimes limited, at others extending the whole length of the limb, and increased by pressure or exertion; marked diminution in the fulness of the pulse wave; swelling of the affected limb without œdema or redness, but followed sometimes by a violent mottling; lowering of the temperature of the affected limb; and lastly the appearance of a hard and painful cord along the course of the artery. The parietal form is to be distinguished from the above by the general mildness of the symptoms, the absence of the cord-like swelling or dry gangrene, and by the fact that recovery always takes place. As to whether the symptoms might not be due to embolism, could only be decided by a careful examination of the heart, and a search for other signs of embolism. M. Barié is of opinion that typhoid arteritis results from two principal factors, viz, local and permanent irritation by parasitic and infectious germs, and profound disturbance of the vaso-motor nerve supply.—*Medical Times and Gazette.*

The Washington Training School for Nurses held the graduating exercises of its third class of Trained Nurses, on May 2nd. Certificates of graduation were conferred upon four women. This School for Nurses was incorporated in December, 1877. It has, however, only been in operation three years. It has met with encouraging success and has supplied a want long felt by the physicians and the public of Washington. Candidates for admission must be over 20 years of age, and must furnish satisfactory written certificates of their moral character and sound health. They must also present evidence of having acquired the elementary branches of education and must agree to remain under the instruction and training of the school for a period of two years. The course of instruction is both didactic and clinical and embraces every branch of nursing, with instruction in anatomy and physiology.

Dependence of Asthma on Disease of the Nose.—Macini describes, *Gazz. de Osp.*, 1883, No. 77–79, three cases in which he believes that asthma depended on a pathological condition of the nasal mucous membrane. His first case was a woman, aged 40, who, with the exception of slight emphysema and bronchitis, was in good health. For the last two years her nose had been partly stopped up, and she was obliged to breathe constantly through her mouth; she frequently suffered from true asthmatic attacks, chiefly by night. On examination it was found that the nasal mucous membrane was greatly swollen, and that completely blocking the nostrils with cotton-wool increased the severity of these attacks. The nostrils were made pervious by the galvano-cautery, with the result of curing the attacks, and enabling her to sleep peacefully. The second case was that of a woman, aged 34, whose right nostril was blocked by mucous polypi; her difficulty of breathing was cured by removing the polypi. The third case occurred in a man, aged 40, who had suffered from his youth from frequent attacks of coryza and difficulty of breathing. He gradually grew bronchitic and emphysematous, and his nose became blocked by considerable swelling of the mucous membrane. His difficulty in breathing increased gradually, till he suffered from attacks of true asthma. As soon as the obstruction in the nose was removed his asthmatic attacks became very much less severe. Macini considers that in these cases the asthmatic attacks were reflex, caused in susceptible persons by peripheral stimulation of the nerves in the mucous membrane of the nose.—*Centralblatt fuer Klinische Medicin.*

Diphtheria Propagated by Chickens.—It has been known for some time that pheasants, pigeons, turkeys, domestic fowl and the like were liable to be attacked by diphtheritis. The *Wiener Allgemeine Medicinische Zeitung* informs us that Prof. Gerhardt, of Würzburg, has carried out a series of observations for the purpose of determining whether the disease may be communicated by this means, and has come to an affirmative conclusion. In September, 1881, 2,600 fowls were sent from the neighborhood of Verona to Nesselhausen, in Baden, where there is a great fowl-rearing establishment. Some of them must have been affected with diphtheritis before they started, and in the end 1,400 fowls died of it. In the summer of last year 1,000 chickens were hatched from eggs collected from many different places. Six weeks after their birth diphtheritis manifested itself among the young chickens, and so badly that in a short time they all died. Five cats that were kept in the

establishment also became ill of the same malady and died. A parrot that hung in a cage in the house was also attacked, but recovered.

Last November an Italian hen, which had been "painted" about the jaws with carbolic acid by the keeper, bit the man's wrist and foot. Presently he became ill with a smart fever, considerable swelling at the wounded parts, and all the symptoms of trumatic diphtheritis. His recovery was very tedious. This was not the only case of the transmission of disease to men. Two thirds of all the laboring persons employed about the establishment became ill with ordinary diphtheritis, and one man conveyed the infection to his three children. It is worth nothing that during all this time no other diphtheric cases occurred at Nesselhausen or in the neighborhood. The inference seems obvious that all cases originated with the sick fowls.—*London Times.*

Medical Items.

At a meeting of the College of Physicians of Philadelphia, held May 7th, Dr. J. M. Da Costa was elected President, vice Dr. Samuel Lewis resigned.=The University of Pennsylvania conferred the degree of M. D. upon 110 candidates on May 1.=The Medical Society of the State of Pennsylvania held its thirty-fifth annual session in Philadelphia on May 14th, 15th and 16th.=The Minnesota State Medical Society will meet at Stillwater on Thursday and Friday during the third week in June.=Dr. J. S. Jewell, of Chicago, is endeavoring to establish an association in the West for the study of neurology.=North Carolina, West Virginia, Alabama, Florida and Mississippi are the only Southern States which have no medical colleges.=Michigan has no less than 1,400 health officers. It has the most active and efficient Health Board in this country and is probably doing more to protect the health of its citizens than any State in the Union. The result of this is that Michigan is rapidly growing in wealth and population.=Dr. Manfred F. Hullihen died suddenly at Wheeling, W. Va., on the 12th inst., æt. 46, of apoplexy. He was educated at Georgetown University and at the Hague, Holland, had served in the Legislature and as assistant resident physician at the Western Insane Asylum.=Dr. Thomas H. Skinner, a graduate of the Univ. of Md. and formerly a resident of this city, died suddenly at Hartford on the 10th.=The Cecil County Med. Society have elected Dr. C. M. Ellis, President, and Dr. J. H. Jamar, Secretary and Treasurer.=The College of Physicians and Surgeons of New York held its commencement on May 13th. This college has a seven months term.=The "Planet," a monthly medical journal edited by Dr. C. E. Nelson, of New York, has been discontinued.=Dr. H. J. Bigelow and Dr. R. M. Hodges have resigned their positions as surgeons to the Massachusetts General Hospital on account of some difficulty with the board of trustees growing out of the appointment of house physician and surgeons.=Dr. Edward Seigle, of Newton, N. C., is reported to have committed suicide by taking laudanum.=Dr. A. R. Mott, Jr., a graduate of the Univ. of Va., class of 1878, died on the 6th of May of typhus, contracted in the line of his duty as a member of the house staff of the Riverside Hospital in New York City. Dr. Mott was a son of Dr. A. R. Mott, of Loudon County, Va. He was a young man of unusual promise and his loss is a serious blow to his friends.=Toads are imported from Australia and sold in London at from £3 to £4 per hundred. The *Grocers' Gazette* hints that this industry will place turtle soup within the reach of all.=Doctor—"There, get that prescription filled and take a tablespoonful three times a days before meals." Pauper Patient—"But, doctor, I don't get but one meal in two days."—*Texas Siftings.*=The taste and smell of ether are best masked by sulphuric ether.=Ice bags applied to the chest are recommended by Prof. Baümler, of the Univ. of Freiburg, to relieve the pleuritic pains in pneumonia.=Dr. W. T. Councilman has been appointed Associate Professor of Pathology at the Johns Hopkins University, and also Pathologist to Bayview Hospital.

Changes in the Medical Corps of the U. S. Navy for the fortnight ending May 10th, 1884:

Passed Assistant Surgeon, H. P. Harvey, detached from Naval Hospital, Chelsea, and ordered to "St. Mary's."

Passed Assistant Surgeon, R. H. McCarthy, ordered to Naval Hospital, Chelsea.

Passed Assistant Surgeon, J. R. Waggener, detached from "St. Mary's" and ordered to "Hartford."

Surgeon, J. C. Wise, detached from "New Hampshire" and ordered as member of Board of Examiners at Annapolis.

Assistant Surgeon T. C. Craig promoted to Passed Assistant Surgeon,

Passed Assistant Surgeon C. W. Gravatt, detached from Naval Hospital, Chelsea, and ordered to U. S. S. "Michigan."

Passed Assistant Surgeon G. E. H. Harmon, detached from "Michigan" and granted leave of absence.

Assistant Surgeon J. M. Edgar, ordered for examination preliminary to promotion.

Changes in the Medical Corps of the U. S. Army for the week ending May 12th, 1884:

Major and Surgeon, Warren Webster, granted leave of absence for six months from April 29th, 1884, on account of sickness.

Major and Surgeon, George M. Sternberg, now at Governor's Island, New York Harbor, ordered to repair to this city (Washington, D. C.) to represent the Medical Department of the Army at the annual meeting of the American Medical Association, to meet on May 5th, 1884, and on adjournment of the Association to return to Governor's Island.

Original Papers.

RECURRENT IRITIS, AND ITS RELATIONS TO CHOROIDAL DISEASE.*

BY S. D. RISLEY, A.M., M.D.,

Assistant Ophthalmic Surgeon, Hospital University of Pennsylvania.

The general features of iritis are so well understood that I shall not delay you in order to portray its usual manifestations; but enter at once upon the study of a small group of cases which shall serve me to illustrate the subsequent history of many eyes, once the subject of acute iritis.

The cases are selected, not because they present unusual symptoms or a novel history, but rather because they furnish clear-cut examples of a frequently occurring form of disease; and I believe throw some light on the pathogeny of chronic iritis. They furthermore illustrate the serious importance of the disease and the value of certain methods of treatment.

No form of eye disease numbers a larger percentage of blind people among its victims than those insidious, but none the less destructive processes which follow in the train of the acute plastic inflammations of the iris. It has long been observed that eyes, once the subject of this disease, are liable to progressive deterioration of vision, and often suffer from acute relapses of the iritic inflammation. This liability to recurrence seemed to depend upon the presence of attachments between the pupillary margin of the iris and the anterior capsule of the lens, since it was observed that cases which recovered, having escaped the formation of posterior synechia, but rarely showed such tendency.

Von Graefe, in 1856 (Archiv f. Ophth., Bd. ii., Abt. 2, S. 202), published his important communication on iridectomy as a means of treating chronic iritis and iridochoroiditis, in which he asserts "*that the principal cause of the recurrences of iritis is the existence of synechia, especially when broad and inextensible.*" Again: "*that the exclusion of the pupil is the point from which the further complications proceed, especially chronic choroiditis.*"

*Read before the Philadelphia County Medical Society, March 12, 1884.

The method of treating acute iritis by mydriatics, at that time insisted upon by him, had for its principal motive the prevention of adhesions of the iris to the lens capsule, and up to the present time is the universally accepted treatment.

The baneful influence which he ascribed to the existence of synechia seemed so thoroughly in harmony with the clinical features of chronic iritis, that for many years its entire correctness was accepted without a question.

Schweigger, however (Handbook of Ophthalmology, American Edition, p. 335, Phila., 1878), in commenting on relapsing iritis, employed the following language: "Such patients are for an indeterminate length of time, at intervals of a month or longer, attacked more or less severely with iritis. It is not strange that such persons generally have a number of iritic adhesions; and still this fact is the only ground upon which is based the generally accepted assertion that these adhesions are the cause of the relapses." In substantiation of this statement he cites a fact within the range of experience, of all ophthalmologists certainly, that many persons, notwithstanding the presence of numerous synechiæ, do not suffer from relapsing iritis, and that, on the other hand, other cases do thus suffer, who have been properly treated from the beginning with atropine, in which no synechia remains.

F. Schnabel (Knapp's Archiv Oph. and Otol., vol. v) has also called in question the truth of Graefe's first proposition, in an elaborate paper on the "Accompanying and Consecutive Diseases of Iritis."

Experience, however, has established upon so firm a foundation the value of the early employment of mydriatics, that we should accept only after the closest scrutiny, any report which would change our notions regarding the hurtfulness of iritic adhesions. It is, nevertheless, important that our eyes should not be closed to other conditions which may stand in a causative relation to recurrent iritis. Any doctrine accepted without question antagonizes further progress.

One object in presenting this paper is to set forth the probability *that too much importance has in some cases at least been given to the existing posterior synechiæ; since the plastic iritis resulting in their formation is itself often consecutive, and the subsequent*

eye history was probably but a continuance of the primary disease, the recurring attacks of acute iritic inflammation being only the extension forward of acute exacerbations primarily affecting the structures posterior to the iris, most probably the ciliary body and choroid.

The following case will illustrate the truth of this proposition:

Case I.—Mrs. H., æt. 63, in good health, although from gouty ancestry, consulted me in April, 1879, for failing sight and inability to use her eyes for near work without pain: $V = \frac{20}{XL}$ in each eye. A weak concave cylinder was very positively selected with its axis at 180°, but no smaller letters could be seen. She complained of a fine web or veil before her eyes, dotted with numerous fine dark points; externally the eyes appeared normal except some enlargement of the anterior perforating vessel; the field was perfect and no increase of tension. The ophthalmoscope revealed only a hazy view of the eye-ground. The nerve was normal in color, and there was no derangement of the central retinal circulation; the visible choroid showed no change. The cornea and lens were transparent, but the anterior part of the vitreous body was hazy, and a magnifying glass showed innumerable fine dark points as viewed by transmitted light. No web could be made out and the dust-like particles were almost fixed. The condition of both eyes was similar.

There was no marked change after four months, during which time she had been quite unable to use her eyes. The following August, after a drive in the park, facing the western sun on a hot afternoon, she returned home with much discomfort in O. D., which during the night ripened into severe pain, which prevented sleep. The following morning, September 1, the eye was red, painful and extremely sensitive to light. September 2, the eye was some better and she ventured out of doors, the day being cloudy, and came to the office. There was still marked ciliary injection, ball tender to the touch in the ciliary region—T*n*—V diminished, and mydriasis revealed a broad synechia, attaching the lower pupillary margin to the capsule. She proved remarkably susceptible to all the mydriatics, so that I was compelled to use them with great caution to prevent serious constitutional poisoning. The eye rapidly regained its former condition, but the adhesion remained throughout the subsequent history of the case. Through the following autumn and winter Mrs. H. had repeated attacks of inflammation resulting in the formation of delicate synechiæ, but profiting by her first experience, the mydriatic was applied at the very outset, so that they were usually torn asunder, leaving a minute pigment spot on the anterior capsule at the site of the attachment. It is worthy of remark that however early in the attack the mydriatic was used, this attachment was, with a few exceptions, found present. The attacks occurred quite indifferently in either eye, often in both simultaneously, rarely more than ten to fifteen days elapsing without an out and out attack of inflammation, or a flushing of the ciliary region. These exacerbations were determined by various causes; *e. g.*, fatigue, a shopping expedition, any effort at near work or a visit to the laundry or kitchen, immediately brought on pain and ciliary injection, resulting in an iritic attack if persisted in.

Under the internal administration of guiacum and iodide of potassium, and the free use of the Bedford water, the attacks gradually grew less frequent and severe. 1880 was passed with only a few exacerbations, but she purchased the immunity from attack by the most assiduous care, in the avoidance of those influences which experience had taught her to dread. The balls, however, remained tender and her vision fluctuated about $\frac{20}{LX}$ sometimes much less than this, at other times somewhat better; on one occasion with correcting glass it was noted as $V = \frac{20}{XXV}$ in each.

In October, 1881, while sitting in church, she had marked photopsies, which were followed in a few hours by an usually severe onset of binocular iritis, which resulted in firm bands of adhesion in both eyes, notwithstanding the employment of local depletion and of atropia as vigorously as she could bear it. The eye once more lapsed into its former condition, with an additional adhesion in O. D. and a firm band in O. S. There was after this attack a marked increase in the haziness of the vitreous humor. Her former experience was now repeated. There were frequent recurrences of the iritic trouble, so that she lived in constant dread, and was greatly discouraged. Various therapeutic measures were adopted, only to be relinquished as of no avail. Iridectomy was now suggested as a probable means of permanently removing the tendency to recurrence. Sulphate of eserine had been used at different times, but only with the result of adding acute periorbital neuralgia to her present distress.

At the time I chanced to be interested in a series of clinical observations at University Hospital, on the effect of this drug over the nutrition of eyes lost by past injury or former inflammation, but now subject to subacute exacerbations and setting up sympathetic irritability of the fellow-eye. I had noticed that

while solutions not stronger than 1 gr. or 2 gr. to the f ʒ i, would cause great pain and thus prevent its use, weaker solutions could be used without difficulty, and with the effect of rapidly relieving the redness of the chronically inflamed eye, and with it the irritability of its fellow.

A very striking result had been gained in a case then and still under observation. A young woman, at work in a carpet mill, came to the clinic, having been advised to have her left eye removed, to which she strenuously objected. There was well-marked sympathetic irritation, depending upon the irritable and blind left eye. The cornea of O. S. was opaque, still vascular and becoming staphylomatous at the centre, where was an adherent cicatrix at the site of a perforating ulcer occurring in childhood. The eye was painful T +, and the sunlight was very painful to the right eye. She could not come into the hospital for immediate enucleation, and was very loth to submit to the operation at all, so she received a solution of sulphate of eserine, gr. ½ to f ʒ i, to be used in the blind eye three times in the twenty-four hours, and instructions to report daily. All the symptoms rapidly subsided. The drops were used for many weeks, and although nearly two years have elapsed, she has had no serious return of the symptoms, notwithstanding the presence, on one occasion, of a small foreign body in the centre of the former corneal staphyloma, which had been allowed to remain many days.

Without room for question, the nutrition of this eye had been greatly improved under the use of the eserine. With this and other examples in mind, Mrs. H. was directed an eserine solution, .002 gm., 10 c. c., to be used twice daily. In a short time after each instillation, she had a throbbing in her eyeballs and a sensation which she described as a starting forward of the eyeballs, which then appeared to recede to their proper bed. There was also a slight twitching of the lids, but no pain. A month later V=$\frac{20}{xx}$ with her correcting glasses in each eye. She had not been even threatened by her old enemy, and was already gaining confidence in the use of her eyes at near work. Four months later, after a long and fatiguing railroad journey, she had a mild attack in Cincinnati, but she had not neglected her homatropin solution, which, through her long trial, she had used with the earliest symptoms of an attack. This was freely instilled, and in twenty-four hours the eyes were once more quiet, and she returned to the eserine. After a lapse of two years there has been no recurrence, notwithstanding the existence of firm inextensible synechiæ in both eyes. The vitreous cleared up so that no trace of the former trouble could be detected. The choroidal magin at the optic nerve showed some increased pigment absorption, but no other change was noted. The ant. perf. ves. also assumed their normal condition.

I am convinced that had we the opportunity more frequently to study carefully iritic eyes before the onset of the acute and painful trouble, we should find the attack had been preceded by an interval of dim or weak sight, with disease of the choroid or retina, or both. In the case of Mrs. H. I had the opportunity to observe, first, the haziness of the vitreous body, and to follow subsequently the painful history of relapsing iritis extending over more than three years. These attacks were invariably preceded and accompanied by increased dimness of sight, due to increased opacity of the vitreous humor, as I had repeated occasion to witness. I did not hesitate to diagnosticate disease of the ciliary region of the choroid-tract, notwithstanding the fact that I could discover no change in the choroid as far forward as I could study it with the ophthalmoscope. I was, however, borne out in this by the fact of the ciliary tenderness which persisted throughout, by the dilatation of the anterior perforating vessels, and by the material poured out at each exacerbation, into the vitreous. This opinion was strengthened furthermore by the inability to use the eyes at a near point.

The opinion that iritis is often secondary to choroiditis or cyclitis receives confirmation in the history of the following case:

Case I.—W. F., æt. 40 years, engineer on coastwise steamer, came to eye clinic of the University Hospital in April, 1878, with commencing iritis. A month before V. in O. D. had failed, and he had a floating web before it. The iris was discolored and he was suffering from great pain and dread of light. The pupil, however, dilated large medium under atropine, and the vitreous was filled with large grayish webs and black masses, which floated freely about with the movements of the eye. V. O. D. counts fingers. In O. S. $\frac{20}{\overline{XL}}$. He gave a clear syphilitic history, and was just recovering from mucous patches in the mouth. He was admitted to the wards of the hospital, and after a tedious treatment finally recovered without post. syn. and V =$\frac{20}{C}$.

During his residence in the hospital he com-

plained of failing V. in O. S.—V = $\frac{20}{LXIV}$—veins of ret. large and tortuous, and the retina hazy throughout. Three days later V. had sunk to $\frac{20}{LXXX}$, and the vitreous was filled with numerour floating opacities.

Under mercurial inunctions these rapidly cleared up and he was discharged June 20 with O. D. V. $\frac{20}{LXIV}$ O. S. $\frac{20}{XXX}$. The following December he returned with failing V—dread of light and cil. redness. He remained under observation for over two years, in the meantime having repeated attacks of irit's. He carried with him a sol. of atrop. sulph., which was applied as soon as he noticed any aggravation of his eye trouble, and thus prevented the formation of adhesions to the capsule. He had many more relapses of dim sight, on three separate occasions affecting the left eye also, which, however, never resulted in iritis. The patient was an intelligent man, and soon learned to treat himself with much skill. He had learned that, unmolested, his attacks of increased impairment of vision in a few days resulted in attacks of iritis. He therefore did not wait for the attack, but began treatment at once. He would swallow a saline cathartic, instil his atropine solution, don his smoked glasses, give up all attempt at near work, and quietly awaits results. If the attack threatened notwithstanding these measures, he applied leeches which he carried with him, while at sea, as a precautionary measure. The attacks in the left eye were ushered in by flashes of light, and either a hazy retina or cloudy vitreous, soon to be followed by floating opacities.

In this case there can be no question but that the recurring iritic attacks were consequent upon increase of the choroidal disease. Furthermore, the recurring attacks of iritis both in Case I and Case II, demonstrate the truth that relapses of iritis are not necessarily dependent upon the presence of synechia, and lend support to the assertion of Schnabel (loc. cit.), that "experience has taught me that eyes possessed of synechia are no no more liable to relapses of iritis than those which have passed through an iritis without retaining any synechia.

I have been greatly interested in the retinal condition present in irido-choroiditis. In Case II the attacks in the left eye were attended with all the necessary manifestations for a retinitis. It is improbable that any serious disease of the choroidea can exist without leading to a pathological condition of the retina, and doubtless the reverse may be true. But it must be remembered that any study of the eye-ground in iritis presents great difficulties because of the almost constant presence of semi-opaque media and the great dread of light experienced by the patient. In my own experience I have been more frequently thwarted than successful in the attempt to do so. When extensive synechiæ are formed, there is also very frequently a web-like opacity of the anterior capsule which precludes any satisfactory inspection of the tissues beyond it.

Notwithstanding these difficulties, Schnabel (loc. cit.) asserts that "the ophthalmoscopic examination of individuals suffering with acute iritis revealed, no matter what the cause might have been, most frequently diffuse retinitis." He appends a history of twenty-three cases of acute iritis thus examined. Five of the cases were diagnosticated as having both retinitis and hyalitis. With reference to this group of cases he states that: "The most remarkable fact demonstrated by the foregoing table is the *almost constant existence of retinitis with acute iritis.*" Although he acknowledges that in the vascular system of the retina (in iritis), we do not see any remarkable changes. Among sixteen eyes having specific iritis he found only one normal retina; and among ten having non-specific iritis only three.

However strongly we may feel inclined to call in question the perfect accuracy of a diagnosis of diffuse retinitis, made through a muddy vitreous humor, particularly when there are no "remarkable vascular changes" to verify the retinal complication, still it must be acknowledged that it is comparatively rare to find an eye affected with acute iritis, that has normal sharpness of sight, or in which the media are found transparent. The existence of opacities in the vitreous are, I think, by most men accepted as evidence of the presence of choroiditis. Schnabel (loc. cit.), however, does not accept this dictum, but insists upon ophthalmoscopic verification of the choroidal disease for a diagnosis of its presence, and insists upon primary inflammation of the vitreous itself. In his study of twenty-three cases of acute iritis, therefore, he found "most frequently retinitis, comparatively seldom the presence of changes in the vitreous, and most rarely anomalies in the choroid."

The anatomical relations of the iris to the uveal tract, of which it is in fact an extension, would lead us *a priori* to anticipate a frequent connection between the diseases of the one and the other. Indeed it was hardly to be expected that an acute inflammation of the iris could be rigidly confined to that important structure, lying as it does in such close proximity to the ciliary body and muscle, enjoying the same blood-supply. But it is equally probable that diseases affecting the choroid proper or ciliary region, might also, by the simple fact of continuity of tissue and blood-supply, attack the iris secondarily or simply by a gradual process of extension forward. That such extensions of inflammation can and do occur has, I think, been demonstrated by the foregoing cases. It receives further confirmation in the following case, which will serve also to demonstrate the serious importance of this disease and the necessity for prompt and well-directed treatment.

There can be no question of the great importance of preventing the adhesion of the iris to the capsule, for however little influence the attachments themselves may have over the production of subsequent attacks of iritis, there can be no doubt as to their baneful influence when they by frequent repetition lead to exclusion of the pupil; this will be painfully illustrated in the history of Case III. I have already presented to the Society the early history of this case, as one of a group illustrating the history of secondary glaucoma. I now repeat it more in detail with the subsequent developments:

Case III.—Mrs. D., æt. 46 years, consulted me August 17, 1881, her vision being so seriously at fault that she was led into the consulting room by her husband. She gave the following history: Her first eye trouble was experienced in March, 1880, when she quite accidentally discovered that vision in O. D. was impaired. The impairment steadily progressed without pain or other symptoms until the following July, when she was attacked with violent pain in the right eye, which spread over the entire right side of the head. The eye was red, tender to the touch, photophobia so intense and pain so severe that for eight days she was forced to remain in bed in a dark room. Her attendant was a homœopathist.

The impairment of vision increased rapidly after this attack; there were frequent subacute exacerbations which simply added to her constant discomfort, and were characterized by an increased dimness of vision, exaggerated tenderness and injection of the ball. The left eye had given no signs of trouble until April, 1881, about one year from the commencement of impaired vision in the right. She then noticed diminished acuteness of vision which steadily progressed up to the present time, but with no violent onset of inflammation. It had had, however, frequent attacks of redness, attended with periorbital pain, dread of light, soreness of the ball, etc. Mrs. D., to all appearances, was in perfect health; she had married late in life and had enjoyed uninterrupted health; had never been pregnant; the menstrual function had been regularly and painlessly performed until the present month, which she had missed for the first time, and was now annoyed by alternating flashes of heat and perspiration.

In O. D.: T + 2, cornea steamy, and sensibility markedly diminished, some ciliary injection, anterior chamber shallow. The iris was atrophic and fixed; pupil 2 mm. in diameter, and occupied by a grayish white web and papillary margin of iris attached in annular synechia; only grayish red light from fundus; there was no pouching of the iris; counts fingers only with difficulty and as shadows, the hand being held between the eye and source of light. Field taken with candles shows perception in temporal field only.

O. S.: Cornea also steamy, sensibility somewhat diminisned, some ciliary injection, anterior chamber shallow, iris discolored, nearly annular synechiæ, no pouching, T+? F perfect, V= $\frac{2}{CC}$ Solution of eserine sulphate 1 gr. *f* ℥ *i*, relieved somewhat the periorbital neuralgia, and the steaminess of the cornea diminished, but there was no improvement in the vision.

On August 31, I did a broad iridectomy upward on the left side, and a large sclerotomy on the right, in the hope of diminishing the tension and relieving the pain, as I had no hope of restoring useful sight in the right eye. The iridectomized eye recovered slowly and with considerable reaction, while the right recovered from the sclerotomy without any reaction, and with entire relief of pain. Three weeks after the operation, O. D. white, T. *n;* free from pain; cornea transparent; pupil as before; ant. chamber normal; but much to my surprise V had risen to $\frac{20}{CXXVI}$ and the field now taken on perimeter had extended in all directions. O. S. showed typical coloboma; ant. chamber normal; T.—; V, quantitative perception; cornea transparent V steadily improved in both, so that three

months after operation, during which she had steadily used the weak eserine solution, O. D., V= $\frac{20}{LXIV}$ O. S. $\frac{2}{C}$ and she visited the office without a guide.

The improvement continued until, notwithstanding occasional attacks of redness, the following September, 1882, one year from the date of operation, when there began an insidious onset of serous iritis in the sclerotomized eye, with punctate deposits on Descemet's membrane and pouching of the iris without increase of tension, and V sunk to $\frac{15}{CC}$.

O. S. as before. On September 26th I did a broad iridectomy in O. D. upward, leaving a faultless coloboma, and liberating a quantity of yellowish glutinous fluid from the posterior chamber. The eye recovered with but little reaction, and all went well until in the night following the fourth day of the operation, when she was awakened by an acute pain in the eye. The following day the anterior chamber was filled with blood. The clot slowly absorbed, the eye softened, and she gradually lost all perception of light. In a few months deposits appeared in Descemet's membrane in O. S. and without pain, V steadily failed until only merest quantitative perception remained.

During these months she suffered much from the troubles associated with the menopause, which doubtless had to do with the unfortunate termination to a most interesting pathological history.

The case furnishes wide scope for speculation regarding its pathogeny. Her failing vision at the outset was surely not iritis, but some disease of the deeper tunics, most probably retine choroiditis. The following violent attack of iritis, resulting in adhesion of the iris to the capsule, the subsequent subacute exacerabations, with the formation of additional bands of lymph, until exclusion of the pupil was reached; then the appearance of secondary glaucoma, with the increased tension of the ball, the cupping optic nerve, the contracted field of sight and almost total blindness; the rapid relief of all the symptoms, by simply incising the angle of the anterior chamber, to be followed by widening of the field and a large restoration of sight, notwithstanding the fact that the gray film still covered the pupil and the iritic adhesions remained, furnishes a picture of disease that cannot fail to interest, although in many respects it baffles a satisfactory explanation. Had the early treatment been so conducted as to prevent the formation of the synechia, until such time as the primary inflammation of the deeper tissues should subside, there is no question but that the ultimate result would have been very different. For in that case the secondary glaucoma would doubtless have been omitted from the picture of disease.

In O. S. the synechia was not annular, so that there was still some small communication between the posterior and anterior chambers. The result of the iridectomy in this eye was disappointing, as compared to the brilliant, though unexpected, but unfortunately temporary, result in the right eye.

The rapid improvement in O. D. can probably be explained by the relief of the glaucomatous tension afforded by the sclerotomy. Notwithstanding this, the choroidal disease slowly progressed toward a fatal issue. It is to be regretted that iridectomy had not been done instead of sclerotomy. The only excuse was that the eye was regarded as hopelessly blind, and the operation was designed to relieve the suffering of the patient.

In the light of comparatively recent investigations, the progress of the disease from the right to the left in the first instance, and the onset of serous iritis about three months after the loss of O. D., furnishes a very interesting history into the pathology of sympathetic irritation.

If in these remarks I have succeeded in making clear that iritis is more than an inflammation of that delicate membrane, I shall feel that I have accomplished my purpose. I do not wish to assert that all cases of iritis begin in the choroid and ciliary organs, but do assert that many exist only in common with inflammation involving the deeper structures, and that their treatment, therefore, should be conducted with this fact in view.

There are many cases in which no evidence of inflammation of the retina or choroid can be gained as having preceded the attack of iritis, where, nevertheless, after the subsidence of the iritis the deeper trouble was revealed. That both may have been due to a common cause, or that the trouble simply extended backward by virtue of anatomical relations, cannot be denied. But that even in simple idiopathic iritis, attacking the iris primarily, there is

also profound congestion of the entire choroidal tract is unquestionably true, and it would be folly to deny that this congestion might, under favoring conditions, *e.g.*, existing dyscrasia, pass over into a pathological state, involving both choroid and retina.

1630 Walnut Street.

Society Reports.

PROCEEDINGS OF THE MEDICAL SOCIETY, DISTRICT OF COLUMBIA.

STATED MEETING HELD APRIL 16TH, 1884.

(*Specially reported for Md. Med. Journal.*)

The Society met with the President, DR. W. H. TAYLOR, in the Chair, DR. T. E. MCARDLE, Secretary.

Dr. J. Ford Thompson read a paper on CANCER OF THE BREAST:

Mrs. S., æt. 45 years, married, mother of six children.

Eight years ago detected a small tumor in the right breast, below nipple. It grew very slowly and without pain, but finally attained a large size.

Three weeks ago she fell and bruised the breast, i. e., before the operation, which was performed April 3rd.

On Friday, March 28th, the breast burst, discharging a large amount of bloody pus, as far as I could make out from what the patient and her husband told me.

I saw her the following day. The breast was large, with an opening to the right of the nipple, from which was flowing a dark, thick, bloody fluid. Upon closer exmination I found this opening lead to an enormous cavity, almost empty, in the region of the gland, and surrounded by nodular, indurated tissue. Besides this enlargement and induration of the breast, there were two deposits towards, but not in, the axilla.

I told her that I thought it was cancer, and that she should have it operated on as soon as possible. To this she assented and said she would notify me when she was ready for the operation.

Tuesday, the 1st of April, she noticed a considerable discharge of blood and she sent in haste for Dr. Naylor. The Doctor found profuse hemorrhage, which he controlled by compresses and pressure.

The following day, Wednesday, I saw her with Dr. N.; but as the hemorrhage was controlled the dressings were not removed, and we appointed the next day for the operation.

Thursday, the 3rd, assisted by Drs. Naylor and W. H. Taylor the dressings were taken off and were found to be foul and offensive. The pus cavity was cleansed with carbolic solution and the entire right side of the chest thoroughly washed in the same fluid. The breast was seized with the "hooks" and drawn outwards, and the breast amputated by two elliptical incisions, including a large piece of the integument. The incisions were thus extended up towards the axilla and the two diseased glands extirpated. Three cat-gut ligatures were applied. The wound was then washed with carbolized water and the sutures inserted. The flaps came well together, except in the centre, where there was a slight gaping. No drainage tube was used. Iodoform gauze was applied to the wound, and over this strips of cheese-cloth soaked in sublimate solution of 1 to 1,000. A large quantity of this was used, and over it a thick layer of cotton wool. A bandage was then applied tightly around the chest and the arm bandaged to the side.

She came readily from under the influence of the anæsthetic, and we left directions for a dose of opium to be taken if necessary.

The next morning she was quite comfortable, but had suffered some during the night. Temperature 99°.

Saturday, comfortable; 99.5.°

It is unnecessary to make a daily record here, as the case progressed without a bad symptom, the highest temperature being that just given of t. 99.5°.

Her wound was not disturbed until Wednesday, when the dressing was taken off, and the wound found to be healed, except in the centre where it gaped to the extent of ¾ inch. The inner layers of the dressing were saturated with bloody serum, and perhaps some pus, but there was no offensive odor. The sutures were taken out and the dressing applied as before.

Thursday, April 15. The patient has been sitting up all the week. Her dressing was taken off; wound healed, except the small spot in the centre, which is granulating and cicatrizing nicely. Carbolized oil ordered as a dressing.

I have three other cases whose histories I had intended to give this evening, but as I neglected to prepare them in time, I shall be able only to refer to them quite briefly.

Miss C—, about 40 years of age, living in the country, came to my office about the 1st of November, '83, to consult me about a tumor of the right breast. She had first noticed it in the preceding May. It had grown with great rapidity and had caused her much suffering. At the time of my examination the tumor involved the entire breast and was extremely hard. The skin was not affected nor were the axillary glands enlarged; the nipple was retracted.

I told her that it was malignant and that it should be operated on without delay. I did not hear from the patient again till early in January, '84, when I received a note from her physician stating that she was ready for the operation. Dr. Taylor kindly accompanied me to Rockville, whither the patient had come, and, with Drs Maddox and Anderson, I amputated the breast. For so short a time there had been very rapid progress of the disease, the skin having ulcerated, and the patient being clearly cachectic, though the axillary glands were still unaffected.

The operation was about the same as the one already described. A drainage tube was used and iodoform gauze relied upon as the antiseptic dressing. This operation was performed on Wednesday, and on Saturday I went out to see the patient, and it was fortunate I did. She had suffered considerable pain, and she was slightly feverish, so I determined to examine the wound. I found that the drainage tube had become closed at the outer end by the pressure, and that the wound contained fluid. I withdrew the tube and took out a stitch, so as to leave an opening for drainage without the tube, which, by the way, was much too small.

I did not see this patient again for three weeks. In the interval she had had some fever, and the wound had suppurated quite freely, notwithstanding that the larger part of it had healed by first intention.

I present the tumor for examination, and express the opinion that there will be a very early return of the disease in this case.

Mrs. B—, a large, healthy-looking woman, of about thirty, married, and a mother. She was a patient of Dr. Busey's, who gave me a history of the case. Six months previously she noticed this tumor in the right breast, which from that time grew rapidly, although it caused her no great pain or inconvenience, except the mental suffering, which was very great, as both her mother and grandmother died of mammary cancer. I did not see the patient till we met by appointment for the operation, February 20th, '84. Present—Drs. Busey and Hagner.

It was clearly a case of carcinoma, and I proceeded at once to operate. The axillary glands were not involved nor the skin, but the nipple was retracted. The operation was similar to the previous one, and the same dressing applied.

This was changed on the 4th of July, when the wound was pretty well united. The tube was taken out and the part dressed as before. There was some discharge of pus from the lower angle for eight or ten days.

I should have said that this woman had enormous breasts. I have not the specimen, but it was very like the one last mentioned. From the heredity of this case and the rapid growth I believe another operation will soon be required.

I was asked by Dr. J—, in February, to see a lady with him who had a small tumor of the breast, which was giving her some uneasiness and she feared it might be cancer.

I found a slight induration on the inner side of the right breast, and apparently not connected with the gland, and over it a depression or dimple of the skin. After thoroughly examining it, I told her that I did not think it malignant, and that for the present I should not advise an operation. Shortly afterwards she was examined by a surgeon temporarily in the city, and he advised by all means to have it taken out at an early date. The breast became much congested after this manipulation, and it was a week or ten days before it subsided. I saw her again with Dr. J—, and we decided to operate.

This lady is about 40, married, and the mother of several children.

March 10. Present—Drs. Johnston, Marmion and Fry. It was not my intention to extirpate the breast as I did not think the growth had any connection with it, but upon making the incision I found it larger than I expected, and that it was attached to the inner margin of the gland, which I cut away with the tumor, going into healthy-looking gland tissue. My incisions were to the inner side of the nipple, as the indurations were almost as far inwards as the sternum.

I dressed the wound with great care, putting in a deep "relaxation" suture in order to approximate three deep parts, and assured the patient that she would be well in a week. The dressing was the same as in the above cases.

This case has turned out to be a very troublesome one. I shall not go into details, as she is yet sick. I shall simply say that on the third day she had a fever; that the wound gaped after I thought it had healed; that an abscess arose on the outer side of the breast, accompanied by pain in the limbs, which made us suspect pyæmia for several days.

I now believe, however, that this lady has had an attack of malarial fever, which has been the cause of all the trouble. Dr. J—, I think, is of the same opinion. The last time I saw her, two or three days ago, she was doing well, and the wound nicely healing.

Dr. Acton, to whom the specimen was referred for examination, told me this afternoon that he had finished the examination, and that it was undoubtedly scirrhous.

Dr. Thompson said he would like to add a few words more about the disease. There is a great diversity of opinion as to the advisability of operation. Then, too, these tumors

are so often concealed until it is almost too late to operate. As for himself, however, he believes that all cases should be operated on as soon as discovered. The difficulty is in making out a clear diagnosis. For this reason physicians differ. It is not an easy matter to make out a diagnosis. With even these four cases, in two he found difficulty. One of the patients was assured by him that she had no cancer, and yet the miscroscope declared it a carcinoma. The glands was not included though attached. There seemed to be a mere dimple and but slight induration. Although he operated, the tumor will probably return. Had he been certain that this was a cancer he would have considered it safer to remove the entire breast. Bryant, however, advises that in such a case the entire gland should not be extirpated.

In another case the woman had suffered eight or nine years with a tumor of enormous size in the right breast, and it was a curious coincidence that these four tumors had been removed from the right side. She had not suffered much pain until she fell, and a few days after, it burst, followed by severe hemorrhage. He removed five inches of integument and everything far beyond the diseased portion. When he examined the specimen yesterday, he had serious doubts as to its being cancer at all. It looks like a cystic tumor or a cold abscess. The latter would be rather exceptional. He had not cut into it, but it did not present the appearance of scirrhus. He had seen doctors claim good results from the removal of cancers. He had never had good results as far as complete freedom from return. Those under his care always returned when they were true cancer. A doctor not careful in diagnosis will have better results. The trouble in making a diagnosis, however, is that there is not a single sign or symptom on which the surgeons can rely. The retraction of the nipple is not always diagnostic. He had seen a mere irritable tumor removed. One of his cases was clearly one of heredity, the mother and grandmother having both died of mammary cancer. There should be no delay in operating. The incision should be wide with the nipple in the centre. In England, where the disease is so common, the incisions are very large. Every thing far beyond the diseased portion is taken away.

Nussbaum, who operates with the thermocautery, leaves the wound open, but pays especial attention to the dressing. His incisions are as large as an ordinary amputation. The cold water coil just spoken of in the last paper is not new, and is not as good as the very light metal caps used in some parts of Germany. Cold is not now much used anywhere, unless it be in injuries about the brain. In his own opinion, strictly antiseptic dressing should be used. Not Listerism, as found in text books, but the more modern adaptation. He had not as yet used it thoroughly, but will do so henceforth. The use of Lister's spray is still under discussion, but it has been abandoned outside of England. In Billroth's clinic there are large tanks of carbolized fluid which play constantly over the part being operated on. No sponges are used by him or his assistants.

A drainage tube should be used when the flaps can be brought together. Iodoform gauze and a dressing of corrosive sublimate, the best of antiseptics, should be used. They should not be used niggardly, and a combination of both is both convenient and effective. Over them cotton wool should be placed and the arm bound to the side. The wound should not be examined too early. The thermometer will be the surgeon's guide, and an examination will rarely be necessary before the eighth day. But a temperature of 101° even should lead the surgeon to make a thorough examination.

He had referred to these cases to bring the subject of antisepsis before the society, and also to discuss the question of early operation. He did not see why extirpation of disease should increase its virulence. This would be especially true if the theory of the local origin of cancer be correct. He thought this thing correct, not, though, in the same sense exactly as a simple tumor. When, however, the glandular structure or the skin was involved, it would be difficult to assure a patient of complete recovery.

Dr. J. F. May related the history of several cases going to show the diversity of opinion amongst surgeons relative to the advisability of operating for mammary cancer. In one case Warren had given an unfavorable opinion, and Smith, of Baltimore, had refused to operate. The axillary glands were involved and even the deep-seated glands. He was called upon after Smith's refusal. He told the patient that there was scarcely the shadow of a chance, yet she insisted on the tumor's being removed. The incision was about fifteen inches long. The entire breast was removed, as should always be done; the axillary glands and even the deeper layer were taken out, because they were found to be involved. The patient lived for five weeks, but died of effusion into the chest. She was copying music at the time, having eaten heartily a short time previous. It is not uncommon for miliary tubercles to be found after the removal of these cancers. He believed, with Dr. Thompson, that the differences in results come from differences in diagnosis.

There is sometimes great difficulty in mak-

ing a proper diagnosis. Among other things cancer must be distinguished from a sero-cystic tumor. This is at first a small tumor about the size of a filbert or walnut and is generally found near the nipple. The introduction of a small trocar will bring off pure serum. It was Sir Benjamin Brodie who first described the sero-cystic tumor and Sir Astley Cooper means the same thing when he speaks of hydatids. These tumors undergo transformation, and after a little while become like a fungoid growth or resemble imperfectly organized fibrine. As these cysts increase in size they approach each other and throw out the same formation on the exterior. They become in case of time one mass and may be mistaken for scirrhus. Ulceration may occur and one of these cysts burst. These fungoid growths constantly increase in size, whilst scirrhus, if anything, decreases. In serocystic tumors the glands are not involved. He had taken them out of eight or ten patients without any return. Though they form one homogeneous mass, it does not cry under the scalpel.

Although he had taken out half a barrel of cancers he was free to confess that if he had his surgical life to live over he would perhaps not remove half a dozen. Very few cases do not return. He could recall two such cases. One did not return for twenty years, but evidently died of cancer: the other never returned, but the patient died twenty vears afterwards from some other disease. When the skin is involved, it is useless to touch the tumor. The dimpled appearance of the skin and glandular enlargement render the case hopeless. There are cases in middle life where the days may be prolonged by removal of the tumor; but generally the patient goes more rapidly. Gross gave him his experience as the same.

Dr. J. Ford Thompson replied that what Sir Benjamin Brodie says is not of much surgical value at present. If we turn to Paget's edition we will find how much his views have changed from those he first expressed.

He even now admits the local origin of cancer, and Dr. Thompson believed that the pathologists of to-day have advanced much proof in that direction, and have done much to discredit the cancer cell floating around in the circulation. He must also confess that epithelioma which will surely kill may be entirely removed if taken in time. If there be any truth in the local origin, there can be no question about the necessity of operating and at once. He had amputated limbs for cancer and the patients got well. For cancer of the uterus, the entire organ is extirpated, and he would not hesitate to perform such an operation, though the chances are decidedly bad. He should operate for mammary cancer as often as they presented themselves, and he would consider it a blessing for them to die of disease of the lung or any other part of their anatomy rather than suffer from cancer and eventually die of its tortures.

Dr. C. E. Hagner said what we wanted established was what should be our course when a tumor of the breast presents itself for our opinion. He had been educated to believe that any tumor, except the irritable, should be removed. He thought it was our bounden duty not to waste our time on salves and internal remedies. Whether cancerous or not, remove the tumor. He had seen several cases of cancer live from three to fourteen years after removal. After some further desultory discussion, participated in by Drs. Thompson, May, Smith, Schaeffer and Taylor, the discussion closed, and the Society adjourned.

OBSTETRICAL SOCIETY OF PHILADELPHIA.

STATED MEETING HELD MAY IST, 1884.

The President, R. A. Cleemann, M. D., in the Chair.

Dr. Henry Beates, Jr., read a report of a case of Cystic Leiomyoma Uteri, the fluid of which contained the Drysdale Corpuscle and other characteristics of typical ovarian cystoma. The early history of this case, owing to the inability of the patient to state with precision a few minor details, is somewhat incomplete, yet sufficient accuracy is available to supply a clear unequivocal clinical record and distinctly demonstrate that the Drysdale corpuscle where found in considerable number in fluid derived from the abdominal cavity is not pathognomonic of cystoma ovarii.

Mrs. L., æt. 51; housewife; a mother, noticed four years prior to admission to the Philadelphia Lying-in Charity Hospital, a lump in the lower abdominal region. The menopause had not yet occurred. The tumor was round, painless and occasioned no inconvenience. Its development was comparatively slow, and not until it had attained large dimensions did it occasion constitutional derangement. When admitted the patient was markedly asthenic and suffered from mechanical dyspnœa, gastric irritability, sub-acute proctitis and pyrexia; the temperature ranging from 99° to 105°.

The facies ovariana and the peculiar atrophy of the soft tissues of the suprathoracic region, so constant an attendant upon ovarian cystoma were present in con-

spicuous degree. The notes of measurement are unfortunately lost but an estimate of the size can be formed when it is remarked that the tumor completely occupied the abdominal cavity, everting the xiphoid cartilage and inferior ribs, bulging far over the lumbar regions and extending over the pubes down and between the thighs. The circumference at its largest portion was about fifty-one inches. The superficial abdominal veins were conspicuous and the cellular tissue from the mammary zone to the feet very edematous. Palpation and percussion detected and revealed signs of ovarian cyst. The fluctuation was more perceptible in the longitudinal than transverse diameter. In the subhepatic region, a decided resistance to pressure was noticeable, dependant upon a thickening of the cyst wall. This mass was attached to the liver at the outer two-thirds of the inferior border. At the inner third there intervened a space which emitted a percussion tympany, the note being that of colic resonance. The urine afforded negative evidence. As the asthenia was so profound it was deemed advisable to tap the cyst in order to obtain an opportunity of improving the general strength and rendering ovariotomy bearable. Dr. Albert H. Smith, who had charge of the case, tapped, employing the ordinary curved trocar and cannula used in tapping per rectum the urinary bladder, and withdrew twenty-seven pints of a dark, muddy-brown grumous fluid, possessing a neutral reaction, sp. gr. 1018, and containing blood and par-albumen. Microscopically I found red blood corpuscles, leucocytes, endothelium in various degrees of retrograde metamorphosis, i. e., the corpuscles of Bennett, Nunn and Gluge, the ovarian cell of Drysdale, cholesterine and amorphous detritus. It did not coagulate spontaneously. These micro-chemical properties coupled with the physical signs determined a diagnosis of ovarian cyst. The grumous character of the fluid and the existence of the subhepatic mass inclined to the belief that we were dealing with a cyst in which carcinosis had become established and that either metastasis to the liver had occurred or there co-existed carcinoma hepatis. The idea of ovariotomy was abandoned and analepsis instituted with the effect of improving the general condition sufficiently to enable her being removed to her home, where she remained under the care of Dr. L. Brewer Hall. In about five months the tumor had refilled and during my absence Prof. James B. Walker, at Dr. Hall's request, tapped the second time. The fluid was clear and presented the appearance of ovarian fluid. In the winter of 1882 I tapped a third time, employing an aspirator. The gentleman assisting me inadvertently applied the exit nozzle of the air pump to the vacuum jar and when the trocar was introduced there occurred an inflation of the cyst. The air apparently inflated a series of variously sized cysts that were arranged circumferentially and emitted percussion notes of different pitch. From this circumstance, which occasioned no evil consequences, we concluded that there existed a number of small cysts communicating with the principal. As the evacuation of the fluid progressed the umbilical region sank in disclosing a circumferential mass presenting the appearance of a wreath as it were, underlying the abdominal parietes. This ridge could be firmly grasped and moved to a limited extent. This peculiarity determined me to carefully examine the fluid. I also had Dr. Formad examine it, and he pronounced it ovarian. The class at the University of Pennsylvania was supplied, and the ovarian cell of Drysdale demonstrated. The cyst refilled more rapidly, and I tapped a fourth time, removing a large bucketful of clear fluid containing the same corpuscle in greater number than the previous specimens; large flakes of coagulated lymph were also evacuated. The circumferential mass had undergone great development, as had also the sub-hepatic induration. The reaccumulation of fluid was more rapid and the deterioration of health steadily progressing. Death terminated suffering about six years after the first manifestations. During the last days of the patient's life, Prof. Walker, in the absence of Dr. Hall, was in attendance. His letter details the mode of death and results of the autopsy: "Mrs. L. died on the Sunday night after your departure. Her bowel trouble rapidly disappeared, but the symptoms of cerebral anemia deepened with hallucinations and convulsions until death.

"At the autopsy the tumor was found to have membranous walls over an area of nine square inches above the navel in the middle line, elsewhere the cyst wall was

quite thick, as per sample. In some localities, notably in the hypochondria, the wall was quite thick. Firm attachments existed over the anterior wall of the sac with the parietal peritoneum, and the intestines were carried far up under the liver and stomach, and were attached to the tumor. The liver was also attached. The entire abdominal cavity was occupied with the tumor, and it dipped into and occupied the pelvis. No attachments existed at the sides nor behind. The uterus was forced downward. One ovary, the right, was normal and attached loosely to the pelvic brim. The other is presumably occupied by the tumor. The cavity of the tumor was occupied by a brownish gelatinous fluid, resembling soft soap. It was transparent, but had a sediment consisting of detritus from the inner wall of the sac. There was but one cyst, and the entire interior was similar in its lining being apparently undergoing erosion. The contents of the cyst measured over a Yankee bucketfull. As the tumor was too immense to even contemplate removal, and as the variably thick wall was everywhere similar save in the pelvic portion, which was darkened from hypostatic congestion, I removed the uterus and the portion of the tumor immediately surrounding it extending the section through the cyst wall."

This specimen was presented to the Society.

Sections for microscopic study were prepared from different portions of the cyst wall and were all demonstrative of leiomyoma. Those from the sub-hepatic portion resembled spindle-celled sarcoma, but were clearly differentiated by the elongated nuclei and want of sarcomatous relationship of cells to capillaries. The identity of the clinical phenomena of this neoplasm with those of ovarian cyst is a matter of special attention. In the early stage, a marked peculiarity consisted of the subhepatic enlargement and induration; a morbid resistance to pressure noticed in the inferior lumbar regions after the first tapping, and attributed to the œdema, is now seen to have depended upon a thickening wall, which, at that time, was insufficiently developed, save in the hepatic region to attract special attention. That all doubt regarding the nature of this neoplasm may be removed, attention is directed to the left ovary which has undergone marked atrophy and is to be seen in the specimen. I submitted some sections to Dr. Formad, who pronounced them ovarian. The origin of the cyst from fundus uteri is evident upon examination. With the facts before us, I think it is conclusively proved that the ovarian corpuscle of Drysdale, while a valuable aid to diagnosis does certainly not possess pathognomonic value.

Dr. Drysdale regretted that Dr. Beates had not sent him a specimen of the fluid removed from this tumor, especially as he had more than one opportunity of doing so. While having the highest regard for the opinion of the gentlemen who examined it, still, so many errors had been made in these investigations that it would have been a satisfaction to him to have examined it himself. But apart from this regret, he considered it by no means proven that the cyst in question was not ovarian. The portion of tumor left attached to the uterine wall in the specimen resembled a closely adherent ovarian cyst, such as he had met with repeatedly. The little mass lying close to the uterus, described as an atrophied ovary, did not present any resemblance to an ovary, nor did it occupy the usual position of that body. In the description no reference had been made to the color of the tumor, which has an important diagnostic value; the uterine fibro-cyst being usually livid or purplish in color, while the ovarian had a white pearly hue. It was especially in cases like that of fibro-cyst of the uterus where the importance of the ovarian cell in diagnosis was well marked. In his investigation of these tumors he had never met with the cell which he had described as ovarian. Mistakes were very easily made in the differential diagnosis of such tumors and in fact in many cases the diagnosis could not be established except by the examination of the fluid or by opening the abdomen. For want of this examination of the fluid he had seen Spencer Wells make the abdominal section to remove a tumor which he had diagnosticated as ovarian but which proved to be uterine. Dr. Marion Sims had sent him on three different occasions and without telling him that they were from the same patient, specimens of fluid which he thought was ovarian obtained from a cyst in the abdomen. Dr. Drysdale assured him that the fluid was not ovarian, but after the examination of the last specimen, Dr. Sims still doubting determined to operate and found a uterine fibro-cyst. The history and all the characteristics of the tumor described this evening were ovarian and the specimen and autopsy were not sufficient to establish the diagnosis of uterine cyst.

Dr. B. F. Baer remarked that the specimen seemed to be a section of a fibroma arising from the uterus but it is too small to be satisfactory or to prove its origin. His personal experience has taught him the diagnostic value of the the Drysdale corpuscle. When Dr. Formad reports finding this cell in the fluid removed from an abdominal tumor he feels strengthened in his diagnosis of ovarian cyst. He has not trusted to the cell alone but has been greatly influenced by its presence or absence in making up a diagnosis in doubtful cases. In every instance in which Dr. Formad has reported finding the ovarian cell, operation has proved the tumor to have been of ovarian origin. He would like to ask Dr. Drysdale if he still considers the cell pathognomonic.

Dr. Drysdale still believed in the pathognomonic value of the ovarian cell. In his investigations he had met with but one exception to the rule and that was in renal cysts. To prove that the cell could be relied on to establish a diagnosis he would give one or two instances where it was impossible to do this except by its aid. In a review by Dr. Harris of the Transactions of the American Gynecological Society in the *Amer. Journ. Med. Sci.* will be found this statement: "On one occasion Prof. D. Hayes Agnew gave Dr. Drysdale a fluid for examination in which he found the characteristic cell. Upon stating what he had found to Dr. Agnew he was told that the fluid had been taken from the abdominal cavity; upon which he immediately said that the fluid must have escaped from an ovarian cyst, for it was ovarian. In this he was correct, as the cyst had a small hole it, as if made with a punch, and the fluid had escaped as claimed." In another case Dr. D. received a letter from Prof. Matthew D. Mann, of Buffalo, N. Y., with a specimen of fluid consisting of eight to ten drops, which the doctor stated was all that he could obtain by aspiration. The tumor had been diagnosticated by other surgeons as one of uterine fibroma, and consisted of a large, solid mass which filled the pelvis and abdomen as high as the umbilicus. The history and symptoms all pointed to a uterine fibroid, and the patient was in such a precarious condition that an exploratory operation was considered unjustifiable. An examination of the fluid by Dr. D. showed the presence of the ovarian cell. This determined Dr. Mann to operate. He found two ovarian tumors, which he removed successfully, and the patient recovered; "without the microscope no certain diagnosis could have been made except by resorting to an exploratory incision." These cases, and he could give many others like them, were sufficient to show the diagnostic value of the cell.

Dr. Beates remarked that it was a matter of extreme regret to him that Dr. Drysdale did not have an opportunity of examining the fluid; it was due to the fact that the neoplasm was regarded as ovarian and the specimens of fluid were not preserved. At the autopsy the growth was presumed to have arisen from the left ovary and none of the fluid was kept. Later study of the specimen disclosed the amygdaloid mass situated in an atrophied membranous structure, closely approximated to the uterus. The microscopic examination of this determined its ovarian character to the mind of Dr. Formad, which conclusion dissipated a doubt in my mind and confirmed my belief of its being the left ovary. I thoroughly appreciate the strong probability of error liable to occur in positively diagnosticating by differentiation the Drysdale corpuscle from similar bodies as the pyoid body of Lebert, but the fact that treatment with acetic acid only had the effect of rendering the whole corpuscle very slightly clearer and disclosed no nucleus; that added to the fluid and the mixture thoroughly agitated for several minutes had the effect of simply rendering the corpuscle paler, convinced me that the bodies were the corpuscles in question. There is, by very extended experience, developed a capacity to differentiate by a varying degree of opacity. Dr. Formad believed these corpuscles to be those of Drysdale. The striking phenomenon, if this be an ovarian cyst, is in the fact that primarily it was purely cystic, typically so, and that during the last year of its existence the cyst-wall throughout its posterior seven-eighths assumed a myomatous development. If this did not occur, the myomatous wall must have originated at the fundus uteri and gradually permeated the cyst. Either of these processes is almost incredible and certainly exceptional to known clinical facts. The true uterine origin must not be forgotten. That a proper conception of the tumor may be formed it should be compared to a large pumpkin with a wall varying in thickness from one to three inches. For an area of about nine square inches at the umbilical region the ordinary cyst-like structure formed as it were a drum-head. This wall is not fibromatous but purely myomatous. Dr. Goodell had seen this patient and diagnosticated the tumor as ovarian.

Dr. B. F. Baer exhibited a specimen of HYPERTROPHIED UTERINE MUCOUS MEMBRANE.—R. H., æt. 30, married twelve years, sterile; puberty occurred at the age of twelve; slight dysmenorrhœa from the first, and since her marriage the difficulty has been increasing, so that during the last few years the pain has been very severe. The menstrual flow, which has always been rather profuse, especi-

ally since her marriage, has for more than a year been irregular in time and quantity; sometimes it continues two weeks very freely when she will be so prostrated as to be compelled to remain in bed to regain strength. She complained of a severe, sharp pain in the region of the left ovary radiating to the groin and anterior part of the thigh and to the precordial region and side of the head to the top-head. She had great dragging in the pelvis and pain in the sacral region. During her periods the mammary glands would swell and become very tender and sore. Coition had been rendered almost intolerable on account of pain during the act and because it increased the pain in the left ovarian region and induced a sensation of nausea and faintness. She had such dread of sexual congress that an interval of months would sometimes elapse between the acts. Her weight had decreased from 146 to 117 pounds, and her appetite and digestion were poor.

Examination showed the cervix uteri to be near the vaginal orifice somewhat elongated and conical. The os was patulous, the body of the uterus very much hypertrophied and retroverted. The left broad ligament was contracted and the corresponding ovary prolapsed, larger than normal and very tender to pressure. The sound indicated a uterine depth of three and one-half inches and the cavity was large and soft. The organ was mobile. Ether was administered, the cervix dilated by means of Ellinger's dilators and the endometrium was carefully curetted, removing a large amount of the most enormously hypertrophied mucous membrane. Nitric acid was applied. Under a regulated diet with rest, complete relief followed with freedom from hemorrhage and pain.

Dr. W. H. Parish would like to hear the result in Dr. Baer's case after the lapse of three or four years. Two or three years ago he had reported before this Society a similar case, in which, after dilatation by sponge-tents, he had removed a large quantity of endometric growths, and applied nitric acid. The treatment was followed by an apparent cure which lasted for some months, after the lapse of which the previous condition returned. The same treatment followed by relief and subsequent relapse has been repeated several times. Good microscopists have pronounced the growths benign. Dr. Goodell has, however, given it as his opinion that it will ultimately become malignant. Dr. Parish has been gradually coming to the same opinion.

Dr. Beates has treated a woman æt. 33 years, who suffers from anteflexion of the uterus, menorrhagia, and granulations of the endometrium. The microscopic appearance is benign. After treatment by means of the curette and nitric acid no hemorrhage occurred for four months; the treatment was repeated, a laceration of the cervix was closed and seven months later the patient became pregnant, abortion occurred at two and a half months, and the granulations and hemorrhages have returned.

Dr. Baer remarked that these cases are very common; they are seen every week at the clinic. They are usually benign but sometimes become malignant from loss of blood and a run-down condition of the system. Adhesions or some other obstacle to the free return of the venous blood from the uterus may exist, or the ovaries may be diseased, and these causes will bring on the relapse no matter how perfect the relief may be. In many cases the cause is flexion; the effect is sterility. It is an exaggeration of a purely physiological process. It may be benign in its incipiency but may become malignant later on.

Reviews, Books and Pamphlets.

The Hip and its Diseases. By V. P. Gibney, A. M. M. D., Professor of Orthopedic Surgery in the N. Y. Polyclinic, etc. Bermingham & Co., 28 Union Square, East New York. 1884. Pp. 412.

The aim of the author is to present in one volume a systematic treatise upon the various diseases which affect the hip, comprehending under this term maladies of both the soft parts and the bones. After an introductory chapter in which he gives the reasons for many peculiar views, and becomes so to speak introduced to the reader, he lays the foundation stone of his work upon the solid ground of anatomy. His anatomical disquisition has at least the merit of novelty, inasmuch as he begins upon the outside with a description of the surface anatomy and describes in turn the muscles, fasciæ, bursæ, nervous and vascular distribution and finally the ligaments, cartilages and bones, which go to form the hip joint.

Chap. III treats of "Sprains and Contusions of the Hip." Dr. Gibney takes exception to the accepted opinion of many authors that sprains and contusions are frequent causes of hip joint disease.

Ch. IV is devoted to Neuroses of the Hip. Ch. V to Rheumatic affections. Ch. VI to Coxo-femoral Periarthritis. Ch. VII to Bursitis of the Hip. This chapter is a very interesting and valuable contribution to our knowledge of these obscure affec-

tions and is the only distinct treatise upon this subject in existence.

Ch. VIII treats of acute primary synovitis. In this section the author affirms his disbelief in regard to "hip disease" originating in acute synovitis, except in rare exceptions; and he regards the prognosis as good, and the exceptions to perfect recovery very few.

Acute epiphysitis of the hip, traumatic diastasis, periostitis, and malignant disease of hip receive appropriate mention in two chapters.

With Ch. XI begins the consideration of chronic articular ostitis of the hip, or true hip joint disease, and 231 pages are devoted to its study. Dr. Gibney may be allowed to speak with much authority upon this subject for he states that during his time of service in the Hospital for the Ruptured and Crippled, 2,048 cases of this disease have been treated. Hence his opportunities for observation have been uncommonly large. It is in this chapter that he exhibits those divergencies from accepted authorities which have subjected him to sharp criticism and in some instances to unkind personal reflections.

Whilst not insisting that hip disease may not begin in the soft structures around the joint, he is very positive in his belief that in the vast majority of cases the primary lesion is in the bones forming the joint, and in most instances that it begins as a diaphyso-epiphysitis.

In regard to the etiology of chronic articular ostitis, Dr. Gibney is a firm believer in the causative agency of struma and thus formulates his opinion: "Whatever other observers may have experienced, I feel warranted in stating, from a careful study of the cases whose analysis is here recorded, that true chronic joint disease cannot occur in a non-strumous child. I believe that a slight injury often develops or acts as exciting cause, but never induces the disease unless a predisposing cause be present." This is strong language, which is corroborated to a great degree by Gross, whilst Bryant says: "Hip joint disease is a local disease, and is mostly set up by local causes."

The clinical history and diagnosis of coxalgia occupy nearly 100 pages and are very fully treated of. The various affections which might be mistaken for hip disease are carefully contrasted with this disease, and the diagnostic points thoroughly explained. It is in these chapters, perhaps, that the extensive acquaintance of the author with his subject is best shown. The whole subject is amply illustrated by suitable cases, derived from his own personal experience. Upon one point at least is the author to be highly commended, to wit, his candor. Whilst he exhibits a pardonable satisfaction in relating those cases which reflect credit upon his diagnostic skill, he is equally candid in narrating his errors when any important lesson is to be impressed by such mistakes.

The section upon treatment of chronic articular ostitis takes up 82 pages and in the opinion of the reviewer is the least satisfactory portion of the book. It consists for the most part of a review of the different methods now in vogue, viz: 1st, the expectant; 2nd, the mechanical, and 3rd the operative. This critical comparison is very interesting, and occasionally the author summarizes his own conclusions, some of which are peculiar, for which he semi-apologetically remarks: "Extreme views may have found a place in this portion of the volume, but they are views based on solid experience, and if not accepted I can well afford to let them take their course as facts;" but one looks in vain for definite rules by which to be guided in the treatment of this serious disease. Rest in bed, painting with iodine, blistering, and constitutional treatment seems to be the practice of the hospital with which he is connected. For the relief of pain and spasm he says, "by far the surest method is fixation and traction. The weight and pulley sometimes act like a charm." Whilst good results are occasionally obtained by the physiological method of Dr. Hutchison, the author is convinced that it does not prevent deformity, and thinks that American surgeons should give a fair trial to the plan of Mr. Thomas, of Liverpool, which combines the physiological method with fixation by means of a dorsal splint. The following conclusions in regard to the mechanical treatment of this disease will commend themselves to most surgeons. 1st. The short extension splint, which permits motion, exert very little if any influence on the average case of chronic articular ostitis of the hip. 2nd. The long splint in competent hands secures for us better results than does any of the splints in general use. 3rd. It is better to

combine the extension splint with the crutches and high shoe.

Chap. XVIII is devoted to the consideration of operative procedures, and is but a short resumé of the subject.

In conclusion, it must be admitted that Dr. Gibney has produced an exceedingly interesting and in many respects a most valuable work, and one which deserves to have a wide circulation. R. W.

Editorial.

The Operation of Ovariotomy.—The success which has been reached by a few surgeons in the removal of ovarian tumors is due to the close attention given to details, no less than to the skill of the operator, for after all the skill of the surgeon is exhibited in the technic, rather than in that manual dexterity which is expended chiefly upon the mechanical execution of an operation. "Practice makes perfect" is a very true maxim, but the surgeon with a limited experience may achieve an early success by studying the details and mastering the secrets which have given good results to those operators who paved the way by a hard-earned experience and study. In no department of surgery is this truer than in abdominal surgery. The early operations were marked by a wretched mortality, whilst those undertaken to-day by experienced operators show a brilliant record. Each year has shown an improvement in results so that we may look upon abdominal surgery as promising a much lower rate of mortality than has as yet been secured. The young surgeon in this field may well profit by the labors of others. We have before us a most instructive lecture, delivered before the students of Harvard Medical School by Dr. John Homans (*Bost. Med. and Surg. Jl., April 10th*), on "The Operation of Ovariotomy," which gives the experience and methods of one of the most successful of ovariotomists. We will present the chief points of practical value in Dr. Homans' remarks. Dr. Homans states that he has opened the abdomen for various purposes 203 times. He has operated for the removal of ovarian tumors 159 times. His first five ovariotomies were performed without any antiseptic precautions and all died. In the next 100 cases antiseptic agencies, including the spray, were used, 13 died and 87 recovered. Since then he has operated 54 times with 4 deaths. His last 30 cases have all recovered. He has never declined to operate but once.

Dr. Homans gives his methods of operating with much precision. He first prepares the patient by restricting her diet for 48 hours, prior to operating, to flour gruel made by boiling equal parts of milk and water together for about an hour, and gradually adding the flour until the gruel is smooth and free from lumps. The bowels are opened with castor oil and an enema just before etherization. Ether is used as an anæsthetic. The operation should be undertaken two days after the catamenia have ceased. Dr. Homans enumerates the different instruments required. He recommends three dozen towels and about forty clean soft sponges of various sizes, which have been soaking for several weeks in a five per cent. solution of carbolic acid. He says: "I have three barrels filled with solutions of carbolic acid, and these barrels are kept full of sponges. Each barrel is used alternately. Some of my sponges have been soaking for ten years." He always uses the spray, but does not believe it absolutely essential. He has never known it to do harm. "*Never economize* when preparing for ovariotomy" is a suggestion made in reference to instruments, dressings, etc. Cleanliness is strictly enforced upon himself and his assistants before beginning an operation. A narrow operating table, say 18 to 20 inches wide, is preferred. After etherization the patient is securely fastened to the table. The abdomen is sprayed and wiped clean with carbolized sponges. A rubber sheet about a yard and a quarter wide, having a hole 8x4 inches in the centre, through which the operation is performed, is then applied to the abdomen. Seven assistants are selected. Assistant No. 7 oversees the spray and keeps a tally upon paper of the number of sponges placed in the abdomen and taken out. Perfect silence is enjoined upon assistants and spectators. The steps of the operation are those observed by all operators. He is careful to stop all bleeding before opening the peritoneum. Adhesions when found should be separated before disturbing the cyst, except those to the omentum and intestines, which are better left until the cyst has been emptied.

Dr. Homans first seizes the pedicle with Dawson's clamp because this squeezes the pedicle tighter than a ligature. He then passes a small needle, threaded with a loop on which hangs a long silk ligature, through the pedicle close to the sulcus made by the compressing clamp, then he divides the loop and removes it. After surrounding the pedicle and protecting the intestines by a warm carbolized towel he burns the pedicle with Paquillin's Cautery. He takes the precaution to pass the ligature before dividing the pedicle, lest the latter should happen to slip out of the clamp and escape while burning it off. After the pedicle is divided the tumor is removed, and the pedicle still held in the clamp, is tied with Tait's knot. The clamp is next removed and if no bleeding occurs, the ligature is cut close to the stump and the latter is dropped into the pelvis. This careful attention to the pedicle no doubt explains, in part, the secret of Dr. Homans' success as an ovariotomist. Dr. Homans makes it a rule to examine the oiher ovary and if he finds that it contains a cyst of the size of a filbert or otherwise diseased he removes it.

He lays great stress upon a thorough sponging out of the abdominal cavity. He does not close the abdominal incision until the sponge comes out dry and clean. By this method he insures a thorough cleansing of the cavity.

The treatment of the patient of the operation is very much simplified by Dr. Homans. Rest and careful attention are enjoyed. "The cardinal principle in taking care of a patient after ovariotomy is to give all opiates and stimulants by the rectum, until flatus the bowels or until all symptoms of nausea or vomiting have been absent for many hours."

Homicide by a Physician.—The terrible tragedy telegraphed from the Eastern Shore, in which Dr. J. D. Pitts took the life of a brother practitioner, Dr. Thomas Walter, serves to show the extreme to which professional rivalry and competition may carry a person of ill-balanced mind. Both these young physicians were well known in Baltimore, having received their degrees at the University of Maryland within the past three years. From the account given, the provocation seems to have been all on the side of the slayer, who invited his victim into his room and then riddled him with pistol bullets, the deceased being entirely unarmed. Pitts is known to have been the slave of the opium habit—which he practiced hypodermatically—and it is also said that his habits were intemperate. It is easy to understand that this circumstance had much to do both with his alleged unpopularity and ill-success and with his dreadful act. The deceased, who leaves a young wife to whom he has been married only eight months, is represented as having been quiet, steady and unassuming.

Lawson Tait on Cholecystotomy.—This operation, due to the genius of the late Dr. J. Marion Sims, who, however, did not see it realized with success in his own case, has now been done by Mr. Lawson Tait thirteen times, and the results of his experience in it are given in the *Brit. Med. Journ.* of May 3rd. His first case, and the first successful one upon record, has remained in perfect health from the date of operation, August, 1879, until the present; the same is the case with ten of the others. Two of the thirteen have died after recovery from the operation, one an old woman from suffocative catarrh some weeks after healing of the wound, the other of cancer of the liver, which was probably the cause of the distended gall-bladder as no gall-stone was found.

The author's experience has taught him that the operation as devised by Dr. Sims is practically perfect and that "the entire possibilities of the treatment of gall-stone and distended gall-bladder were exhausted in Dr. Sims' original paper." The modification proposed and actually carried out by Sir Spencer Wells in one unsuccessful case, viz: to open the gall bladder, remove calculi and close it by a continuous suture without attaching it to the abdominal wound, he objects to on the ground that the bile will escape into the peritoneum through the incision. The likelihood of this is greatly increased if the duct be closed by a stone, of the absence of which it is extremely difficult if not impossible to be quite certain during the operation. Under such circumstances the gall-bladder becomes over-filled, with a mucous secretion if the obstruction be in the smaller cystic duct, with this and bile if it be in the larger common duct. In either event the distension of the gall-bladder (the contractile power of whose muscular walls is far more powerful than is commonly believed) results in an escape of its contents. And, as the contractile power of the bladder upon which the progression of the stone depends would be thereby lost, he seems to think that the stone would remain forever impacted in the same position leading to permanent discharge of bile.

Still more he condemns Langenbuch's plan —fatal in three of six cases—of extirpating the gall-bladder. This reservoir rights itself on

the removal of the cause, even when the changes in its tissues have been extreme, and in the event of impaction in the common duct the danger of extravasation is even greater than in Wells' plan.

In an interesting case quoted by the author —of his own series—the duct remains closed by a calculus, and all the bile escapes through the fistula; although this is a mere pin-hole, repeated attempts to close it have been followed by agonising colic continuing until the restoration of the flow. The author, therefore, proposes to open the abdomen to the inner side of the bladder and crush the stone *in situ* with padded forceps applied outside the duct.

An interesting point developed by Mr. Lawson Tait's experience is that he has seen no evidence to show that either quantity or quality of food, or any drugs, have any effect upon the quantity or character of the bile. The loss of the entire secretion caused only inconvenience from the dribbling, and in one case the patient has positively gained in weight and greatly improved in health. The stools in this case are almost milk-white and yet there is not the slightest evidence of flatulence or decomposition.

Miryachit, a New Nervous Disease.—The remarkable development of recent years in our knowledge of the physiology and pathology of the nervous system has enriched our nosology with several new names. Among these, the latest, to which attention has been directed by Dr. Wm. A. Hammond, of New York, is the above. This affection consists of a peculiar mental or nervous disease in which the sufferer is forced against his will to imitate everything suddenly brought to his senses. It was first described by some American naval officers travelling through Siberia in a pamphlet published by the U. S. Navy Department last year. According to information furnished them it was not uncommon in that country, particularly about Yakutsk where the winter cold is extreme. It is much less common in men than women. The Russians give it the above name.

The solitary case which came under the cognizance of the Siberian travellers was that of the steward of the steamer which conveyed them on their journey. This man, in imitation of similar acts, would clap his hands together or to his face, and slap the paddle-box, imitate noises as shouting, etc., or jump, throw his hat down, or slip when some one accidentally slipped near him. All of these acts were repeated instantly and with remarkable accuracy. The subject of this singular abnormality is described as "a man of middle age fine physique, rather intelligent in facial expression, and without the slightest indication in appearance of his disability."

Dr. Hammond points out the analogy of this case and that of the Jumpers or Jumping Frenchmen, as described in 1880 by the late Dr. G. M. Beard; the latter case differs from the former, however, in not requiring examples but only commands. The Jumpers obey orders but do not imitate acts performed before them.

Dr. Hammond also refers to "sleep-drunkenness" as of like character with that of the Siberian. Many examples are recorded in which individuals suddenly awakened from a sound sleep have committed incongruities, sometimes acts of violence and even murder. He suggests that all these cases indicate motor impulses originating from perceptions communicated to the persons affected without any concurrence of the will. They are, therefore, of the nature of reflex acts and are analogous to certain epileptic paroxysms which result from reflex irritations.

In the *Brit. Med. Jl.* for May 3, Dr. Richard Neale, the author of "Neale's Digest," furnishes an interesting note upon the same subjet. He says that in Java there are many natives similarly affected, who are there called "lata." These cases, of which he had a personal knowledge, exhibit the same irresistible impulse to imitate even to the dropping of valuable articles or children. He mentions one of these cases in the person of a young woman who had come to England with her mistress.

There seems to be no doubt then of the reality of such a condition as that pointed out by Dr. Hammond, and the only question is whether it should be regarded as a distinct disease, or merely one of the protean manifestations of nervous derangement, probably hysterical in origin. The fact that it seems to prevail mostly in women suggests the latter explanation. The imitative faculty is known to be highly exaggerated in hysteria, although it assumes rather the form of imitation of symptoms or diseases than of separate individual acts. The subject is an interesting one and well worthy of further study.

Miscellany.

The Diagnostic and Prognostic Value of the Tubercle Bacillus.—Mackenzie (*Ibid.*, Feb., 1884), in a paper, distinguished for the conciseness with which he presents an important series of facts, details the results of examination in seventy cases of pulmonary and laryngeal disease. A little over one-half of these cases were undoubtedly instances of tuberculous disease, and

in all the specific bacilli were present in the sputum. In the acute cases they were usually from three to four times as abundant as in those of chronic course. In laryngeal phthisis the bacilli were usually present in abundance, and were especially numerous in the muco-pus taken directly from the larynx by the laryngeal brush. So marked was this phenomenon that Mackenzie attributes great diagnostic value to this mode of examination in doubtful cases of laryngeal inflammation or ulceration. On the other hand, the absence of bacilli in the sputum in suspected cases is at least strong presumptive evidence against the existence of tuberculous disease. In Mackenzie's series of cases bacilli were absent in thirty-three, of which twenty-two were undoubtedly non-tuberculous, and the remainder, although of doubtful character at the time of observation, were proved by their subsequent history not to be of tubercular origin. Accordingly, he ascribes considerable diagnostic value to the presence or absence of the bacilli in doubtful cases, especially in the incipient stages. In common with other observers, he does not consider that much stress should be laid upon the prognostic indications afforded by the number of bacilli present, since non-febrile cases of slow course *may* show an abundance of bacilli, while cases of acute general tuberculosis, in which the lungs are not greatly affected, usually show very few.

Forcible Dilatation of the Orifices of the Stomach.—Prof. Loreta recently dilated the cardiac orifice of the stomach for the ninth time. The patient, a young woman, aged 20, had suffered for twelve months with a stenosis which allowed liquids to enter the stomach with the greatest difficulty. Life was only maintained by nutritive enemata. Prof. Loreta opened the abdomen, then incised the stomach and dilated the stricture. He closed the stomach and abdomen with separate sutures. The patient made an entire recovery. Soon after recovering from narcosis she swallowed three spoonfuls of water with perfect ease.

How to Limit the Spread of Scarlet Fever.—Jamieson ("Edinburgh Medical Journal," March, 1884) thinks that very much can be done in this direction by the use of warm baths nightly, the body being afterward greased with an antiseptic ointment (the one which he himself employs contains 30 grains of carbolic acid and 10 grains of thymol to the ounce), and by the regular application of a solution of boro-glyceride to the throat.

If these precautions are taken at the very outset of the disease and kept up through its entire course, cases which can not be thoroughly isolated may be rendered innocuous, so far as transmission of the disease is concerned. The author adds that all cloths and bedding should be steeped in a dilute solution of carbolic acid.—*N. Y. Med. Journal.*

Antiseptic Absorbent Sponge.—Mr. Sampson Gamgee showed before the Medical Society of London, April 21st, an artificial antiseptic sponge of his invention. A small capsule, containing eucalyptus or other antiseptic, was enclosed in absorbent cotton; outside of this was a layer of cocoanut fibre, and outside of this more absorbent cotton-wool; the whole being enclosed in gauze. When about to be used the capsule could be broken by a blow of the fist, and the absorbsnt cotton became permeated with the antiseptic. Mr. Gamgee said that these sponges could be made at a very trifling cost, and he hoped they would come into use as a cheap substitute for ordinary sponges; they possessed this great advantage, that when required for use they were certain—however long they might have been kept—to be antiseptic; and, being so cheap, they might always be destroyed after being used.

A Formula for Nervous Headache.—Dr. A. L. Hodgdon, of Farmwell, Va., recommends the following recipe for nervous headache:

℞	Alcohol Dilut.,	℥ iv
	Olei Cinnamom.,	♏ iv
	Potass. Bromid.,	ʒ v
	Extr. Hyoscyam. Fl.,	ʒ iss
	Fiat Lotio.	

S. One to two teaspoonfuls as required.

Dr. Hodgdon has used this combination with universal success. It is not disagreeable to take and has no bad effects.

Splenectomy.—Mr. Knowsley Thornton removed the spleen at the Samaritan Hospital on April 22nd from a single girl, aged 19, who had been known to have a tumor for two years. The spleen was hollowed out into a multilocular cystic cavity, and it weighed two pounds. Mr. Thornton recently exhibited the specimen to the London Pathological Society, and stated that the patient had nearly recovered.

Medical Items.

THE report of the Librarian of Congress shows that the Toner collection of medical works was increased during the past year by 470 volumes of books and 3,755 pamphlets. The total collection now numbers 27,515 volumes and 15,755 pamphlets. Among the accessions is an extensive collection of authentic portraits of American physicians and surgeons.=A Fellow of the Linnæan Society of New South Wales has offered to give a prize of £100 for the best essay on "The Life-History of the Bacillus of Typhoid Fever.=Mr. George Stephen has given to the Montreal General Hospital the sum of $50,000 to commemorate the memory of Dr. George W. Campbell.=Mr. Royle, the medical attendant of the late Duke of Albany, has been made a C. B.=Tincture of belladonna is highly recommended by Dr. J. Mackenzie Booth in *The Lancet* for chloral poisoning. =The ashes of Prof. S. D. Gross weighed about seven pounds. They were inclosed in a marble urn about three feet high, unornamented and without inscription and placed beside the coffin of his late wife in the family vault at Woodland Cemetery. =The library of the American Medical Association numbers 6,000 volumes.=There are at present twelve vacancies in the medical corps of the navy.=It is stated that more than 1,000,000 persons, or one-quarter of the population of London, are the recipients of gratuitous medical aid.= "The Gold-Headed Cane" is the title of a book just published in England edited by Dr. Wm. Morek, F. S. A. "The cane," which was carried successively by Dr. Radcliffe, Dr. Mead, Dr. Askew, Dr. Pitcairn, and Dr. Baillie, is made to tell its own story. It is a sparkling epitome of the history of modern medicine.=Dr. Thomas A. McBride has been elected a professor of diseases of the mind and nervous system in the New York Polyclinic.=At the meeting of the American Laryngological Association, held in New York City last week, the following officers were elected for the ensuing year: Dr. E. L. Shurley, of Detroit, President; Dr. J. H. Hartman, of Baltimore, First Vice-President; Dr. W. H. Daly, of Pittsburg, Second Vice-President; Dr. D. B. Delavan, of New York, Secretary and Treasurer; Dr. T. R. French, of Brooklyn, Librarian. Dr F. Donaldson, of Baltimore, and Dr. F. H. Bosworth, of New York, new members of the council.= Prof. Charles Adolphe Wurtz, the eminent French chemist, is dead.=The next annual meeting of the Medical Society of New Jersey will be held in the Stockton House, at Cape May, on June 10th and 11th.=Dr. J. Feld, of Kansas City, reports that in six cases of adherent placenta he has saved the woman by pumping cold water through the umbilical cord. In one case the patient was in convulsions when the after-birth came away.—*Med. Record.*=It is rumored that a new medical college is to be established in Boston, and madame rumor also intimates that our own city will soon give birth to a similar institution. =Dr. I. Berman, who has been practising as an eye, ear and throat specialist in this city for several years, has moved to Washington, where it is understood he has had very advantageous inducements.

CHANGES IN THE MEDICAL CORPS OF THE U. S. NAVY during the week ending May 17th, 1884:

Medical Inspector D. Kindleberger, to be Fleet Surgeon of Pacific Station.

Assistant Surgeon Philip Leach, detached from U. S. S. "New Hampshire" and ordered to Naval Hospital, Chelsea.

Passed Assistant Surgeon D. N. Bertolette, detached from Naval Academy and ordered to Practice-Ship "Dale."

CHANGES IN THE STATIONS AND DUTIES OF THE OFFICERS SERVING IN THE MEDICAL DEPARTMENT U. S. ARMY, from May 13th, 1884, to May 19th, 1884:

Waters, William E., Major and Surgeon, ordered to report for temporary duty to the commanding officer at Plattsburg Barracks, N. Y.

Hubbard, Van Buren, Major and Surgeon, relieved from further duty at Fort Stanton, N. M., and ordered to Fort Bayard, N. M., for duty.

Moseley, E. B., Captain and Assistant Surgeon, assigned to temporary duty at Vancouver Barracks, Washington Territory.

Wilcox, Timothy E., Captain and Assistant Surgeon, assigned to duty at Washington Barracks, D. C.

Wales. P. G., First Lieutenant and Assistant Surgeon, assigned to duty at Old Fort Colville, Washington Territory, until further oaders.

Sternberg, George M., Major and Surgeon, relieved from duty in Department of the East and ordered to report to the Surgeon General of the Army for temporary duty.

Magruder, David L., Lieutenant Colonel and Surgeon, ordered to be relieved from duty as Medical Director, Department of the Missouri, and to proceed to Philadelphia, Pa., and assume duties of attending Surgeon and Examiner of recruits in that city.

Fryer, Blencowe E., Major and Surgeon, from Department of Missouri to Department of Dakota.

Ewen, Clarence, Captain and Assistant Surgeon, from Department of Missouri to Department of Platte.

Strong, Norton, First Lieutenant and Assistant Surgeon, from Department of Platte to Department of Missouri.

Original Papers.

THE TIME REQUIRED BY THE BLOOD FOR MAKING ONE COMPLETE CIRCUIT OF THE BODY.*

BY ROBERT MEADE SMITH, M. D.,

Professor of Comparative Physiology, University of Pennsylvania.

In a paper published in the *Philadelphia Medical Times* for January 26th, 1884, I gave an account of a new method which I had employed to measure the amount of blood thrown out of the ventricles at each contraction, and to determine the time required by the blood for making one complete circuit of the body. I there had occasion to criticize the method which has heretofore been employed to answer this latter question, and to point out some of its defects. I have recently been studying this subject from another point of view, and have obtained some results which strengthen the position taken in the article referred to.

It will be remembered that the method which has been employed for this purpose, the infusion method of Hering (*Ztschrft. fuer Phys.* Bd. iii. and v, and *Arch. fuer Phys. Heilkunde*, 1853, p. 112), consists in injecting into one jugular vein towards the heart a solution of some salt whose presence in the blood can be readily recognized by chemical tests, and in finding how soon after the injection the salt appears in the blood coming from the head in the corresponding vein on the opposite side of the neck.

When thus injected, to reach the peripheral portion of the opposite jugular vein, the salt must evidently have passed into the right heart, through the capillaries of the lungs, into the left heart, through the carotids or vertebral arteries to the head, and through the capillaries of the head or face to the jugular vein; or, in other words, must have passed through two capillary networks with their arteries and veins. It must, therefore, have completed an entire circulatory revolution. But to conclude that the time elapsing after the introduction of the salt into one jugular vein before it is found in the blood coming from the head in the opposite vein is the time for one molecule of blood to pass from one of these points to the other, it must in the first place be admitted that the salt has been carried mechanically by the blood, without diffusing through it, with the same velocity as the blood itself; and in the second place to enable the formation of any opinion as to how often the entire mass of blood passes through the heart, it must be admitted that the velocity thus determined by the infusion method is the mean velocity of the blood mass. To show that both of these assumptions are unwarrantable is the object of the present communication.

I. *The Element of Diffusion in Hering's Method.*—Poisseuille (*Ann. d. Sciences Nat.*, 1843, ii. ser. t. xix, p. 30) was the first, and as far as I know has been the only one to offer any experimental proof as to the falsity of the belief that the potassium salt was carried mechanically, as would be an inert body, by the blood. He repeated Hering's experiments on the horse, and was able to confirm his statement as to the time elapsing after the injection of the solution of potassium ferrocyanide before it appeared in the jugular vein of the opposite side; but he further found that this time was different for different substances, and was even modified by the presence of other substances when injected with the potassium ferrocyanide. Thus, while the time required for the circulation of the potassium ferrocyanide was *twenty-eight* seconds in the horse, when a little alcohol, in quantity insufficient to have any appreciable effect on the pulse and blood pressure as measured with the hæmadynamometer, was injected with the potash-salt, the time of circulation was lengthened to *forty-five* seconds. Or, when potassium nitrate or ammonium acetate was administered under similar circumstances, the duration of circulatian was reduced to *eighteen* or *twenty* seconds. In other words, he found that in the living body the rapidity of circulation of substances mixed with the blood agreed with the rapidity of flow of the same substances through dead capillaries or even through glass tubes.

It is, moreover, well known that if two fluids capable of mixing are brought into contact they will diffuse into each other with a considerable degree of rapidity, even when the mass of the liquid is at rest or when there is great difference in the relative volumes of the fluids; while if one fluid is poured into another with which it is miscible, or if agitated after the two fluids are brought into contact, diffusion is almost instantaneous. And as some force is always employed in injecting the salt solution into the vein, the mixture of this solution with the blood will be promoted while the motion of the blood renders the conditions still more favorable for diffusion.

The assumption is, therefore, a fair one, until subjected to experimental disproof, that the element of diffusion forms a considerable item in the rapidity with which solutions of salts complete the circuit of the body. As far as I know, however, no such proof has ever been advanced, and the direct experiments which I have made on this subject serve rather to confirm than to disprove this assumption.

* Read March 5, 1884.

It is evident that if any particulate, inert substance, small enough to pass through the capillary networks, and capable of ready recognition, could be injected into the blood, there could be no question as to the element of diffusion in the time required for such a substance to complete the circuit of the body; its velocity of movement must be the velocity of the current in which it moves; and if more time is required for the circulation of such a body than for the salt solution, it will be evident that some force other than the propulsion of the blood is concerned in the movement of the salt. These conditions I believe to be filled in employing pigeon's blood as the body whose transit is measured.

The red blood corpuscles of the pigeon have a short diameter smaller than the diameter of mammalian blood disks; and as all red blood corpuscles pass edgewise, and oval corpuscles (as in the frog) pass endwise in the centre of the blood stream, it is probable that the pigeon's corpuscles will circulate in mammalian bloodvessels with their long diameter in the axis of most rapid movement. They therefore agree with the first requisite as to size.

In the second place, they are oval and nucleated, and so form such a strong contrast to mammalian blood disks that a single pigeon's corpuscle in a drop of mammalian blood can be found under the microscope with the greatest readiness.

It might at first seem, however, that pigeon's blood injected into the vessels of a mammal is by no means an inert substance. It was proved in the earlier operations of transfusion that the blood of one species of animal is a direct poison for other species. When the blood, whether defibrinated or not, of one group of mammals is injected into the vessels of another of the same class but of different species, the corpuscles of the injected blood rapidly disappear, the plasma becoming red from the liberated hæmoglobin, which, when large quantities of blood are injected, may pass off through the kidneys causing hæmoglobinuria, or even into the mucous and serous secretions; while at the same time the corpuscles of the animal receiving the injection, if they are themselves soluble in the injected blood, break down, and as a consequence convulsions and death through asphyxia may result.

The resistance offered to these phenomena differs in different groups of animals; thus, the dog, of all animals, is least liable to dangerous symptoms following the injection of blood from a different species. There is still another complication to be noted. Before the corpuscles are dissolved they tend to run together into heaps and so cause emboli, while again the liberation of hæmoglobin is likely to cause thrombosis.

It would seem from the above that pigeon's blood, which was also found by Bischoff to provoke analogous symptoms when injected into mammals, is by no means an inert substance, and is therefore entirely unfitted for the use I have made of it. Such is not, however, the case. The production of the symptoms mentioned above is a question of minutes; the duration of the circulation one of seconds; and I have found by direct experiment, as will be shown later, that the circulation is completed before disorganization commences.

There is one difficulty, however, that must be guarded against. The solution of the pigeon's corpuscles occurs not only in the vessels of the dog, the animal on which most of my experiments were made, but also after blood has been drawn and exposed to the air. Therefore, if the corpuscles are not sought for within a very short time after the withdrawal of the blood, they will only be found with great difficulty, and sometimes not at all, though it may be that their presence in the same portion of blood was proved only a few minutes before. To avoid error from this cause, Dr. Gray, the Assistant Demonstrator of Histology in the University, kindly examined the blood for me the instant that the collection was made, and before alteration had commenced. Such a procedure is not, however, absolutely necessary, as the first change in the corpuscles is their loss of hæmoglobin and consequent transparency, while the cell wall disappears still later, and the nucleus remains unchanged for some time. If, therefore, a little aniline red is added to the drop of blood under examination, pigeon's corpuscles, otherwise almost invisible, can be readily recognized.

Method of Experiment.—Two pigeons were killed by decapitation immediately before the experiment, and their blood collected in a dry porcelain dish and thoroughly defibrinated by whipping with glass rods; the blood was then filtered through a fine linen cloth moistened with half per cent. salt solution (water was avoided so as to preserve the corpuscles unaltered).

The animal to be experimented on was then tied and etherized, and glass canulæ, of the same calibre as the vessels, were inserted into the external jugular veins, in the left directed towards the heart, and in the right towards the periphery, flow of blood being prevented by spring clips. A canula was then inserted into the femoral artery, and connected with a mercurial manometer writing on the kymographion.

The canula in the right external jugular vein was connected by means of a piece of rubber tubing about four centimeters long

with a glass stopcock by which the outflow of blood could be regulated to about the amount normally passing through the vein.

The apparatus for collecting the blood and for noting the time of each collection consisted of a horizontal glass disk thirty-one centimeters in diameter, which could be uniformly rotated by clock-work at any desired speed. Twenty-four watch-glasses, each about two cm. in diameter, were fastened by sealing-wax around the edge of the disk, and the apparatus was so arranged that as the disk rotated, the centre of each watch-glass passed under the stopcock connected with the right jugular vein.

The time was recorded in the following way: The entire disk, with the exception of the border on which the glasses were fastened, was covered with a layer of lampblack, and an electro-magnetic lever so arranged that as the disk revolved it would describe a concentric circle on the smoked surface. This electro-magnet, with a similar lever writing on the drum of the kymographion, was included in an electric circuit broken every second by a second's pendulum. Each interruption of the circuit, therefore, made a mark simultaneously on the revolving disk and on the moving paper of the kymographion. The apparatus was further so arranged that a single movement started the revolving disk and at the same time made a mark on the already revolving drum of the kymographion. The orifice of outflow from the stopcock and the time lever were on the same radius of the disk.

A syringe containing 10 c. c. was then filled with the defibrinated pigeon's blood and bound in the canula, previously filled with the same blood, in the left external jugular. After all connections were made the kymographion was started and allowed to revolve for twenty or thirty seconds before making the injection, so as to get a normal pulse and pressure curve. The clip was then removed from the right jugular vein, and as soon as the blood commenced to flow from the glass stopcock, the clip was removed from the left jugular, the injection made, and the disk started simultaneously; the instant of starting the disk being also automatically recorded below the pulse line on the kymographion.

When all the cups were filled with blood the disk was stopped and the blood instantly examined microscopically for the presence of pigeon's corpuscles. When it was determined in which glass they first appeared, it was only necessary to count the number of breaks in the time line on the disk from this glass to the start to determine how many seconds were required for the pigeon's corpuscles to pass from the left jugular vein to the right. While by laying off on the kymographion tracing the same number of seconds from the starting of the disk, the number of pulsations in that period was readily determined, and also whether the injection produced any disturbance of circulation.

The following are the details of two experiments made on this plan:

Experiment I.—Nov. 24, 1883. Dog. Weight 18 kilo. Experiment conducted as described above; effects of ether had largely passed off before the experiment was made. Time required for pigeon's corpuscle to pass from the left to the right jugular, twenty seconds. Pulse in twenty seconds=55.

Before Injection.

Blood pressure.	Pulse in 15 seconds.	Respiration. In 15 seconds
160 mm.	36	6

After Injection.

5 seconds,	160 "		
10 "	155 "		
15 "	148 "	39 in first 15 seconds.	6
20 "	135 "		
30 "	90 "	43 in second 15 "	6
45 "	76 "	38 in third 15 "	7

The experiment was then interrupted for half an hour, when the low pressure produced by the pigeon's blood had passed off. One grm. of potassium ferrocyanide was then dissolved in 10 c. c. of normal salt solution, warmed to 38° C., and then injected into the left jugular vein, and the blood collected from the right jugular, and other details followed, as in the case of the injection of pigeon's blood.

Before Injection.

Blood pressure.	Pulse in 15 seconds.	Respiration in 15 seconds.
155	40	7

After Injection.

5 seconds,	110		
10 "	50		
15 "	30	16 in first 15 seconds.	1
20 "	20		
30 "	18	6 in second 15 "	none.
		Dead.	

The blood was then allowed to stand in the watch-glasses until the serum separated; a drop of the latter was then drawn off with a pipette, placed on a porcelain dish, acidulated with dilute hydrochloric acid, and tested with a drop of dilute ferric chloride solution. It was then found that the portion of blood collected *fifteen* seconds after the injection of the potassium salt was the first to form the characteristic blue with the iron. The potassium ferrocyanide, therefore, passed from the left jugular vein to the right in *fifteen* seconds; pulse in 15 seconds = 16.

Experiment II.—November 30, 1883. Dog. Weight 10 kilo. Details of experiment the same as in the preceding. The pigeon's corpuscles were found in 17 seconds; pulse in 17 seconds=53.

Before Injection.

Blood pressure.	Pulse in 15 seconds.	Respiration in 15 seconds.
120	33	5

After Injection.

5 seconds,	120		
10 "	120		
15 "	120	44 in first 15 seconds.	6
20 "	120		
30 "	115	50 in second 15 "	7
60 "	60		

The animal was then allowed to remain undisturbed until the pressure again became normal, when 0.4 grm. potassium ferrocyanide, dissolved in 4 c. c. normal salt solution, was injected, and the blood collected as before.

Before Injection.

Blood pressure.	Pulse in 15 seconds.	Respiration in 15 seconds.
150	36	6

After Injection.

5 seconds,	120		
10 "	55		
15 "	25	18 in first 15 seconds.	2
30 "	15	15 in second 15 "	none.

Heart stopped one minute after injection.

The serum was then tested as in the previous case, and the Prussian blue found in the blood collected 9½ seconds after the injection of the potassium salt. The heart-beats in this period = 14.

The comparison of the times required in the same animal for the circulation of the pigeon's blood and the potassium salt clearly proves the falsity of the assumption that the salt moves through the vessels with the same velocity as the blood.

Vierordt (*Stromgeschwindigkeiten des Blutes*, Berlin, 1862), who, by his numerous experiments and important modifications and extensions of the plan of research, has identified himself with Hering's method from a series of seventeen experiments made on dogs with an average body weight of 9.14 kilo., places the mean time of circulation in the dog at 15.22″, and from experiments made on three rabbits of 1.37 kilo. average weight, he gives 6.91″ as the mean time of circulation. In giving these figures he states that he has been careful to exclude all experiments in which the violent symptoms produced by the injection of the poison occurred within the time that his other experiments made on the same plan, but in which such symptoms did not appear, give as the mean time of circulation. This is, however, manifestly unwarrantable; for, were the substance injected a solid carried mechanically by the blood, any disturbance of circulation accompanied by great reduction in the pulse and blood pressure could only produce reduced velocity of the circulation, and consequently prolong the time required for the circuit of the injected solid around the blood vessel system. But that in the face of such disturbance, and that, too, of the most violent character, the salt could be distributed with the greatest rapidity throughout the body clearly proves that it was not mechanically carried by the blood. Thus, in the experiments detailed above, we find that even when given in doses large enough to arrest the heart almost instantly, thus removing the main cause of the movement of the blood, and greatly reducing its velocity, we find, nevertheless, that the potash salt circulates more quickly even than the time given by Vierordt, and twenty-five per cent. faster than the pigeon's corpuscles are carried by the blood under normal conditions of pulse and pressure; for it should be noticed that the pulse and pressure remain comparatively undisturbed until after the circulation is complete. That the pigeon's cells are not disturbed in their passage through the capillaries is proved by the fact that there is never any rise of blood pressure after making an injection of pigeon's blood, as would occur were there any blocking of the circulation in the capillaries.

The following are the results obtained in ten experiments made in the manner described above to determine the time required for the passage of the pigeon's corpuscles from one jugular vein to the other. In each case the pulse and pressure remained undisturbed until after the circuit was completed.

(To be continued.)

THE SALTS OF LEAD IN THE TREATMENT OF ERYSIPELAS.—Several letters have lately been written to the "*Lancet*" concerning the use of white lead in the treatment of erysipelas. Mr. J. H. G. Drummond, of Manchester, writes to that journal that he has made free use of a preparation termed "Wilson's linimentum plumbi lactatis compositum," which, he intimates, contains the albuminate and the salicylate of lead. On these constituents, he thinks, the efficiency of the preparation as a surgical dressing largely depends. He has always found it successful in erysipelas, and, although he has applied it to extensive surfaces, he has never known toxic symptoms to arise.—*New York Medical Journal.*

THE IMPROPRIETY OF USING PATENT AND PROPRIETARY MEDICINES.*

BY LACHLAN TYLER, M. D., OF WASHINGTON, D. C.

The importance of medical legislation has increased with the rapid and threatening growth of the evils demanding it. From various directions and through many channels comes ample evidence of appreciation of this fact. Journalistic editorials and contributions bearing upon the subject have of late been quite numerous, and action by different societies in relation thereto has not only been frequently taken but has also been earnest and effective in character. Not alone is it the purpose to erect legal barriers to the practice, or rather mal-practice of medicine by pretenders, but further still to regulate the traffic in patent and secret medicines, and limit as far as possible their power of producing harm. With the certainty of its meeting your approval, I will apply to ourselves the urgent necessity of also moving in this matter. The remarkable gullibility of people must always make it a difficult undertaking for us to alter their faith in quack specifics, yet when we see and recognize the injury they undoubtedly do, we cannot but yield to an unconquerable impulse and insist on the danger of their slightest use. In pursuing this course we fulfill a moral obligation resting upon us and without further legal equipment than we have, do all in our power to procure an improved state of things.

We have but to take into consideration the enormous cost of advertising these twin medicinal evils, and the extent to which it is done, to form some idea as to their immoderate consumption. The confident belief among medical men is that the majority of those who are addicted to their use are quite certain to come to them in due time for proper treatment, not only on account of the original disease which has generally been aggravated, but often for additional ailments which have been induced. In other words, they appear as wrecks of their former selves. On the other hand, we who at the outset of our career have been exhorted to keep the glorious light of our science undimmed are compelled to witness its lustre grow brighter like that of a star among clouds instead of in a clear and bespangled sky.

Unless I mistake, it is already the law (as the intention is to make it such) in one or two States, to have the ingredients of every empirical compound printed on the wrapper. Though evasion of it in some way might occasionally be managed, this is at all events a long stride in the right direction, as well towards the protection of the public against harm and imposition, as towards the suppression of a nefarious business. For by removing the evil of secrecy from them the wand with which they work their spells is broken.

I will not take up our time by recapitulating all the evils associated with the sale and consumption of these nostrums, for they have been often and fully repeated and should be familiar to every one of us. If to the charge that even we have sometimes endorsed them a strenuous denial could be uttered, an unsightly blot might instantly be erased from our record. But if this cannot be, a creditable atonement for the offense could be made by proscribing rather than prescribing them in all future time.

Concerning what are termed the proprietary medicines or special preparations emanating from the large manufacturing pharmaceutical establishments, which, by the way, may be said to stand in a somewhat similar relation to the profession as do quack remedies to the laity, much could be said. While not denying that they often possess positive virtues, it is yet difficult to see the actual need of them, or under what circumstances any peculiar benefit is derived from their employment. By dismissing them entirely from our notice we would most assuredly have much to regret. In the first place, we would sacrifice a gratifying opportunity of having our names paraded more often in print; and in the second would consign to "the dusty crypt of forgotten forms and faces" our seductive friend, the drummer. But with the consciousness of asserting thereby our claim to the dignity and dependence of intelligent physicians, we would be more than competent to survive the fatal consequences of our act.

Nothing is so familiar to us nor should be so distasteful as the covertly insulting habit these manufacturers have of baiting us with their wonderful remedies, and providing us at the same time with their epitomized treatises on therapeutics and practice. By our own inertness we have indeed permitted them to act as if they held a proprietary interest in ourselves as well as in their medicines. Whenever they feel disposed to toy with the medical profession and startle the world afresh with the brilliancy of their achievements, they get up some new and magical preparations and forthwith attempt to make them the fashion. What a bewildering array of these in this way have endured a "wee short hour" and passed into oblivion, despite the fulsome praise of great men.

Some of the results of having these special preparations foisted upon the medical profession have been mentioned by Dr. Laurence

*Read before the Medical Society District of Columbia., April 23rd, 1884.

Johnson, in a paper entitled "A Plea for the Pharmacopœia," read before the Medical Society of the State of New York last February. In addition, it may be said that the further effect is to encourage the manual instead of the mental mode of prescribing. It is sufficient to be aware that it is —— compound syrup or elixir which is indicated in any given case; there is apparently no need of more accurate knowledge regarding its composition than the title implies. The only requisition, therefore, is to write out the prescription, and not to think it out.

Although the best possible supervision and care have been exercised in the preparation of the Pharmacopœia, it is nevertheless represented as being not altogether without error. If it becomes necessary then to receive even the dictum of such an authority with a degree of caution, how reluctant should we be to rely implicitly as we are not inapt to do, on the *ad captandum* assertions of manufacturing pharmacists. By permitting ourselves to continue as their pliant tools, it is hardly too much to say that the fine art of prescribing may eventually be numbered among the last ones, and we may find ourselves turning not oftener to our text-books for information, but as a matter simply of greater convenience to their circulars and pamphlets.

Our business interests are also seriously damaged. The patient after his first visit has the same opportunity of knowing about one of these compounds, as his physician who prescribed it for him. Being ordinarily of an inquiring mind, and of a somewhat venturesome disposition, he discovers that it can be readily obtained, and since its use has been authoritatively sanctioned, taken, as he supposes, with confidence according to the printed directions. He therefore continues its use and without seeking further professional advice, recommends it to others of his acquaintanceship who may be similarly afflicted.

Finally, the imperfect knowledge of medicine thus easily disseminated tends to lower its standard in public estimation, and opposes another obstacle still to its legitimate exercise as a profession by augmenting the naturally large number of opinionated individuals.

It is worthy of note that the retail druggists, towards whom we are too commonly *a canteaux tires*, as the saying is, are for sufficient reasons also strongly averse to the use of these remedies. Amongst other things, they contend that they are obliged to carry in stock many cumbrous assortments of them from different makers, and on account of the readiness with which they become popularized are oftentimes actually driven in the course of their sale to compete with the ordinary tradesman.

Some mention now of prepared medicines, or those of an officinal character, which issue from the wholesale manufacturers. In what manner they are injurious may not be so clearly shown. For the most part it must be admitted that they do possess the requisite degree of medicinal activity, and are generally put up in the most attractive forms. It would seem, however, that they tend to have an undesirable effect upon the efficiency of the retail druggist. Under the present system it is almost if not quite as necessary to have in our midst reliable apothecaries to depend on in the event of sickness as to have capable physicians. But if their professional work is to be performed by a few on the wholesale principle and they are to be left with little else to do than follow in a mechanical fashion the directions they receive, it is at once apparent how unskillful and untrustworthy they may become in their art with the lapse of time. Furthermore, if they are to be relieved from personal responsibility in reference to the medicines they sell by having it, simply through convenience, transferred to the wholesale dealers, it becomes a matter of serious inquiry to know how any unfortunate circumstance resulting therefrom is to be satisfactorily traced and explained or made punishable.

Besides the teasing persistency with which we are sampled with these wares by contending firms, the disposition to be dictatorial towards us is too often made unpleasantly evident. The customary method also of labelling many of them which includes a statement of dose and of the diseased conditions in which they are useful, carries with it the insolent presumption of our own ignorance in reference thereto, and places them to a certain extent in the same category along with the objectionable preparations already spoken of. Moreover, their manufacture seems to be governed too far by mercenary motives, either to merit our encouragement or to gain for them our fullest confidence.

In conclusion, it is enough to say that for their own credit, and in order to remedy many existing evils, physicians should still more assiduously study the pharmacopœia and limit themselves in practice to the drugs and preparations contained therein.

A Physician's Practice For Sale on the line of the B. & O. R. R. in West Virginia about 90 miles from Baltimore. Annual collections average 3,000. A good stone house, which has been a physician's stand for 20 years, with stabling for two horses, will be sold, together with the good will of retiring physician, for $3,000. Good reason given for selling. Apply to the Editors of this journal for further information.

Hospital Reports.

REPORT OF THE PRESBYTERIAN EYE, EAR AND THROAT HOSPITAL FOR APRIL, 1884.

BY HIRAM WOODS, M. D.

The number of visits paid at this Hospital during April was 3,235. There were registered 502 new cases. The largest number seen on one day was 189, on April 9th; the smallest 70, on the 8th. The average daily attendance was 124.5. During the month 51 operations were performed for the relief of eye troubles, and 13 for the ear.

In the early part of the month a boy of five years of age was brought to the Hospital by his father, who gave the following history: About one week previous the little fellow had put a piece of slate-pencil into the left ear. For several days he had not spoken of what he had done, and, when he did speak of it, only casually mentioned it to his mother. *He did not complain of any pain at all.* His mother at once undertook to remove the foreign body, and to do this brought into use the very common domestic ear instrument, a hair-pin bent into a hook. After numerous efforts she was obliged to stop on account of the pain the child suffered. The next day she tried again, and meeting with no better success, she took him to a physician in the neighborhood, who tried to get the substance out with a pair of forceps. He also failed to effect its removal and had to stop on account of the pain his forceps seemed to produce. The next day he was brought to the Hospital. I found in the auditory canal several clots of blood, which were removed with warm water and absorbent cotton. The skin lining the canal was excoriated in many places. About one inch from the meatus, partly covered by blood clots, I found the piece of slate-pencil. It was one third to one-half inch long, and its two ends were wedged firmly against the anterior and posterior walls of the canal. With a fine probe I moved it from its lodgling place, and with a few injections of tepid water effected its removal from the ear.

There is nothing unusual about this case, and it is only reported because it illustrates very well a few important points concerning the presence of foreign bodies in the external ear. The first of these is that *if the substance is left alone, it is, in the large majority of cases perfectly harmless.* The little fellow, whose case has been narrated, began to suffer only when his mother began her efforts to get the slate-pencil out. Prof. Politzer says that "the consequences attributed to foreign bodies are, with few exceptions, due to the awkward attempts made at extraction by non-professional hands." He narrates cases where foreign bodies have remained in the external ear fifty years without ever making their presence felt.

Another point is, that in the removal of foreign substances from the ear instrumental interference is rarely necessary. A syringe that can be worked with one hand—the other being free to straighten the canal—and some tepid water are usually all that is required: indeed all that is justifiable. In the case narrated had not the slate-pencil become wedged, as it did, in the canal, and thus produced so much pain as to compel non-interference, a great deal of harm would probably have been done. Each successive attempt to get hold of the slippery pencil would probably have sent it farther in, and ultimately the drum would have stood a very good chance of being perforated. An otitis media, with all its annoying accompaniments would then have probably followed, finally ending in more or less impairment of hearing.

If, however, syringing fails to remove the substance, and its removal is demanded, there are some instruments which *should not be used.* Among these is the common forceps usually found in a pocket-case. It is often excessively difficult to get hold of the foreign body unless it is directly in the meatus. As the forceps slip time after time over the object, the only result is that it is pushed farther in toward the narrow part of the canal, where it becomes wedged. Another danger in the use of the common forceps is that they come in contact with the walls of the canal, and thus the skin is broken and bruised. Bleeding follows and makes the work still more difficult. Numerous instruments suitable for the work are described, and unless these are at hand—after the liberal use of warm water has failed—less harm will be done by letting matters alone than by persevering with the wrong instruments.

A Ready Means of Detecting Albumen in the Urine.—M. Hoffman (*Semaine Medicale*) has strips of paper prepared for this purpose, by dipping them into a mixture consisting of a solution of corrosive sublimate 1 to 20 parts of water, and iodide of potassium 1 to 2 parts of water, in equal quantity. When dried, the paper can be carried to the bedside, and dropped into the specimen of urine, and if albumen be present a precipitate will immediately follow. To produce this reaction the urine must be acid, and to make sure of this, a strip of paper which has been soaked in a solution of citric acid is first placed in the urine.—(*Jour. of Amer. Med. Association.*)

Society Reports.

WEST VIRGINIA MEDICAL SOCIETY.

SEVENTEENTH ANNUAL SESSION HELD AT CLARKSBURG, MAY 21 AND 23, INCLUSIVE, 1884.

(*Specially reported for the Maryland Medical Journal.*)

The seventeenth annual session of the West Virginia Medical Society convened in the City Hall of Clarksburg on Wednesday, May 2. The meeting was called to order by Dr. A. F. Steifel, of Wheeling, who occupied the Chair in the absence of the President on account of sickness.

An address of welcome was delivered by Dr. D. P. Morgan, of Clarksburg, Chairman of the Committee of Arrangements.

The Committee on Publication reported through its Chairman, Dr. J. E. Reeves, of Wheeling, that three hundred copies of the last annual report had been issued.

The Treasurer, Dr. W. F. Vankir, reported $148 in the treasury.

Dr. R. W. Hall, of Moundsville, on behalf of the Committee on Climatology and Epidemics, reported that there had been no severe epidemics in the State during the year. The diseases most prevalent were those affecting the respiratory organs, bronchitis, especially the capillary variety, taking the lead. This had been attended with a high mortality among children. Pneumonia was next in point of frequency, laryngitis coming third and pharyngitis fourth on the list. Whooping cough frequently complicated other diseases. It was especially severe in Harrison County. The Committee had not seen a case of diphtheria during the year, but from information received they were led to believe that it prevailed over two-thirds of the State. The Committee took occasion to comment on the great laxity among the profession in using the term diphtheria. It seemed to the Committee that due allowance should be made for errors of diagnosis. They thought that the number of cases of pharyngitis should be greater, and the number of cases of diphtheria should be less. The disease was not attended with the usual high rate of mortality which fact was explained by the foregoing statement. The cause of the disease was referred to decaying animal and vegetable matter, bad water and food and unfavorable hygienic conditions. The materies morbi of the disease the Committee were unable to determine. They did not wish to undervalue the bacterial theory of causation but they insist that as important as this view of the disease is, attention should not be diverted entirely from the significance of the facts presented by clinical observation.

Reference was made to the relatively small portion of the State in which malaria exists.

Typhoid fever had prevailed in nearly every portion of the State during the year accompanied by a great many fatal cases. Scarlet fever, typho-malarial fever, measles and mumps had prevailed in different counties to a greater or less extent.

In the discussion of the report of the Commitee, Dr. G. H. Rohé, of Baltimore, took occasion to express the opinion that the view often expressed as to the non-contagious character of of diphtheria was likely to do harm. He held that diphtheria does not begin *de novo*. He cited cases illustrative of this opinion. Dr. Rohe thought local treatment comparatively unimportant, but he uses iron and quinine in frequently repeated doses.

The Committee on New Remedies reported through Dr. R. M. Baird, of Wheeling. Particular reference was made to jequirity, kairin and convallaria majalis.

Dr. J. P. Miller, of Buckhannon, read a paper on the successful treatment of phthisis

Dr. Fleming Howell, of Clarksburg, reported a case in which a silver dollar was impacted in the cricoid cartilage and removed by œsophagotomy.

Dr. W. H. Sharp, of Volcano, read a paper on the Prevention of Puerperal Fever in Labor Cases, in which he insisted upon strict cleanliness without the use of antiseptics in private practice.

Dr. G. H. Rohé, of Baltimore, read a paper on the "Treatment of the Later Syphilitic Lesions of the Skin and Subcutaneous Connective Tissue." He considered the tertiary lesions of syphilis merely sequelæ and not symptoms of the disease. He regarded the disease as curable and objected to the hopeless prognosis so often given. He regarded large doses of iodide of potassium, 20 grs. four to six times a day, as necessary to produce the desired effect. Mercury should not be altogether discarded. Tonics, fresh air, cleanliness, exercise were considered important.

BALTIMORE MEDICAL ASSOCIATION.

STATED MEETING HELD MARCH 24TH, 1884.

(*Specially reported for Md. Med. Journal.*)

The Association was called to order at the usual hour, the President, DR. E. G. WATERS, in the Chair; present Drs. Waters, Morris, Mackenzie, Gibbons, J. T. Smith, J. Harvey Hill, Kemp, Neff, Jones, Sellman, Erich, Scarff, Ashby, Hundley, Rohé, Perkins, H. F. Hill, King, R. H. Thomas and Cordell.

The Minutes of the last meeting were read and adopted.

The *Committee of Honor* reported favorably on the names of Drs. Gundry and Chabot, candidates for membership, who were then ballotted for and duly elected members of the Society.

CONVULSIONS OCCURRING IN THE COURSE OF ACUTE RHEUMATISM AND SUPPOSED TO BE DUE TO METASTASIS TO THE BRAIN.—*Dr. Gibbons* was called four days ago to see a young lady affected with rheumatism of the hip and knee. He ordered for her wine of colchicum and salycilate of sodium, the dose of the latter being fifteen grs. The next day she had convulsions accompanied by headache and contracted pupils. These symptoms continued for twenty-four hours and were relieved by chloral and bromide of potassium given by enema. Dr. Gibbons supposed there had been a metastasis to the brain, otherwise he could not assign any cause for the symptoms reported.

Dr. Morris saw a case of such metastasis ten years ago, which proved fatal in two days.

Dr. Erich was disposed to regard the symptoms as due to the remedies rather than the disease.

Dr. Mackenzie agreed with the last speaker. He had seen congestion of the brain produced by very small doses of the salicylate. He mentioned the case of a young, vigorous man, æt. 23 or 24, who was relieved of rheumatic symptoms by salicylic acid. Two days after all medication had been discontinued he was attacked with convulsions, which continued several hours, resulting in death. The autopsy was performed twelve hours after death. A thorough examination revealed no cause for death. There was no meningitis.

Dr. Ashby suggested to Dr. Gibbons an examination of the urine. A lady was suddenly seized with convulsions supposed to be hysterical. Her urine was examined subsequently and found to be loaded with albumen.

Dr. Morris had seen two cases of metastasis to the brain before the introduction of the salicylates. The first was one of syphilitic rheumatism and occurred in 1867. Convulsions occurred lasting twenty-four hours and delirium lasting two hours. The pulse fell to ten per minute and did not regain its normal frequency for two weeks. The second was that referred to above, the patient being a man approaching the period of convalescence from an attack of rheumatism. There were no convulsions in this case.

Something being hinted about a possible hysterical element in the case, *Dr. Erich* pointed out that tremor of the eyelids was distinctive of hysterical convulsions as contrasted with those from central causes. This rule holds good except in hystero-epilepsy.

Dr. Gibbons said his patient had bit her tongue.

The President referred to a case of fatal rheumatic metastasis to the cerebral meninges in which the temperature ran up to 106°.

MALARIAL ATTACKS USHERED IN BY CONVULSIONS.—*Dr. Sellman* said he had seen two cases within the last ten days in which malarial attacks were ushered in by epileptiform convulsions. Both occurred in adult females. Under quinine treatment there was no return.

Dr. Morris had frequently seen a chill ushered in in children by a convulsion.

OCCLUSION OF POSTERIOR NARES, THE RESULT OF CONGENITAL SYPHILIS.—*Dr. Sellman* also reported the following case: A girl, æt. 10, adopted by colored persons, has had evidences of syphilitic trouble since the age of six. The soft palate was entirely destroyed by specific ulceration. Upon examination the posterior nares were found to be closed completely by a septum. Attempts had been made to open a passage through this septum but without success.

Dr. Mackenzie said this was a case of much interest, only three such having been recorded from this cause.

CASE OF SWALLOWING OF THE TONGUE IN AN ADULT.—*Dr. R. H. Thomas* opened the regular subject for the evening, the report of a "Case of Swallowing of the Tongue in an Adult." The patient was a young lady, the subject of a severe idiosyncratic coryza, closely resembling hay asthma. This she has had for three years, it being most marked in winter. It is aggravated by ordinary dust and dust of flour. During the paroxysms she suffers from dyspnœa, and breathing through the nose is interfered with. The only physical signs to be heard were numerous râles in the medium-sized bronchi. Her history showed that she had an attack of chronic coryza at 11 and had also had two attacks of diphtheria. She was also affected with hypertrophic catarrh. Dr. Thomas was called suddenly to see this patient at 9 P. M. on the 2nd inst. In the afternoon of the same day she experienced a peculiar

sensation and a trembling in the tongue accompanied by difficulty in pronouncing words, especially those containing the letters l and r, as "biliary." She suddenly experienced a desire to swallow and felt her tongue going down her throat; this was succeeded by atonic spasm of the organ lasting half an hour. She pulled it forward but it was again drawn down the throat. Dr. T., on finding this state of things, administered chloroform by inhalation which gave temporary relief. Bromide of potassium was also ordered; also calomel in one-tenth gr. doses for relief of gastric symptoms. The chloroform was repeated whenever there was any sign of a return of the spasm. The following day she was very weak. There were no symptoms after the second day. This was the only attack she had experienced. She showed no hysterical symptoms nor had she ever had them. Dr. Thomas thought two explanations might be given of this attack; either that it was the result of a reflex irritation originating in the hypertrophied nasal membrane or that it proceeded from gastric disturbance. He said such attacks were comparatively common in children, and sometimes fatal, but he had been able to find but one case reported in the adult and that by Prof. Ingalls, of Chicago. He emphasized the profound effect on the nervous system in both cases. He suggested the term "Spasmodic Retraction of the Tongue in Adults" as a proper title for such cases. The treatment consists in seizing the tongue, drawing it forward and retaining it there; the patient should be supplied with a pair of forceps for use as required. On the appearance of any premoritions of an attack chloroform should be inhaled, which can be safely done by placing a sponge in a wide-mouthed jar and pouring one-half teaspoonful of chloroform upon it. Nervines, sedatives and ferruginous tonics should also enter into the treatment.

Dr. Thomas also added the further statements, that there was decided tremor in the tongue before and after the attack. The patient exhibited no nervous symptoms whatever unless the hay asthma be considered such. She was the least excited of any one in the room, and drew her tongue forward and held it herself. Dr. Thomas did not himself see the tongue swallowed, although he saw the retraction commencing; its further progress was prevented by the chloroform.

Dr. Mackenzie agreed in the explanation of the probable reflex origin of the spasm from the hypertrophied nasal membrane.

Dr. Chambers was rather disposed to assign the case to hysteria.

Dr. Thomas thought this improbable, as the patient had no hysterical symptoms and was sitting up and talking calmly at the time of the attack. It was not of central origin as the subsequent history shows. Dr. Mackenzie had proven that there was a reflex centre in the nose; why should this not explain the present case? There were only two explanations apparent, the gastric irritation and the irritation from the hypertrophied nasal membrane. The effect of the chloroform showed that it was spasmodic, as if it had been a simple falling back of the tongue chloroform would not have prevented it.

The discussion was then closed.

THE NEW PRESBYTERIAN EYE, EAR AND THROAT HOSPITAL.—A heavy force of workmen are now engaged in erecting hospital buildings upon the old site of the Hospital, 77 East Baltimore St. The location is peculiarly well fitted for Charity Hospital work, being on the main thoroughfare of the city and in the midst of the very large population of mechanics and laboring people. The new hospital will be a five-story building with a front of 63 feet on Baltimore Street. The architectural designs are very handsome and are from the office of Charles L. Carson, architect. The plans have been carefully worked out by Dr. J. J. Chisolm, who has adapted the interior arrangements so as to offer every convenience for the treatment of eye, ear and throat diseases and especially for the care of patients requiring serious operations for the restoration of sight. The first main floor will be given up exclusively to dispensary charity work. The second floor will be for female patients, with an operating room, well lighted by an extra sized bay window, which will occupy the entire side of the room. The third story will be for male patients, and the fourth will given be up to colored patients. Besides the main charity wards the hospital will contain sixteen private rooms for pay patients. These will be fitted up with every convenience for their comfort. The capacity of the hospital will be 60 beds and when finished it will be one of the largest as well as one of the most complete eye hospitals in the United States.

SULPHIDE OF IRON IN THE TREATMENT OF HÆMORRHOIDS.—Dr. Samuel Wimpelberg writes to the *Medical Bulletin* that he has had more favorable results with persulphate of iron in the tratment of hæmorrhoids than with any other drug in the pharmacopœia. He recommends an ointment of the sub-sulphate, in the proportion of twelve grains to the ounce, to be applied night and morning. In cases of proctocele he uses the persalt internally, in doses of two grains three times a day, in conjunction with the local use of the ointment. He speaks particularly of the rapidity with which he has known piles to disappear under this treatment during pregnancy.

Editorial.

Honors to Dr. Koch and His Fellow-Laborers.—The German Cholera Commission, under the distinguished leadership of Dr. Robert Koch, have received many congratulations from the medical profession throughout the civilized world, on the results of their researches upon the progress of cholera in Egypt and India. These congratulations have been lavishly bestowed—not only by the Germans, who may feel justly proud of the labors of their countrymen, but by other nations as well, which recognize that the service thus rendered may ultimately result in the extinction of this dreadful scourge of the human race. Dr. Koch and his comrades, Dr. Gaffky and Dr. Fischer, undertook the work of investigation under peculiar and difficult circumstances, and in prosecuting their labors manifested a spirit of self-sacrifice, self-denial, and a disregard of death which cannot receive too much praise. The return of the Commission from their recent labors was celebrated in Berlin, with an enthusiasm quite worthy of the occasion, which called for expressions of appreciation and applause. It must be gratifying to the Commission to know that barren praise is not the only honorarium they are to receive. The German Reichstag has decided to divide amongst the Commission the sum of 135,000 marks, or £6,750, of which sum Dr. Koch will receive £5,000.

The reports of the Commission, published from time to time by Dr. Koch, have attracted a wide-spread interest throughout the entire scientific world. Whilst the investigations are not final or conclusive in every direction, they have been conducted in such a careful and well-directed manner that science is greatly indebted to the Commission for the observations which have been made. The fact has been determined that whatever progress is to be made in the management or prevention of cholera, it must be reached through an improvement in the hygienic conditions under which people, exposed to this disease, live. The discovery of a bacillus peculiar to cholera and a knowledge of its behavior under certain conditions, is a decided advance in the management of the disease, for having once acquired an insight into the ætiology of disease, science has made a long step in advance in prevention and treatment. The work of the Commission may be regarded as a most valuable contribution to scientific knowledge, and it is this fact, no less than the self-denial and labor of Dr. Koch and his comrades, which has called forth the enthusiastic reception at Berlin and the honorarium from the German Reichstag.

Pneumonia an Infectious Disease.—With the growth of our knowledge of the ætiology of disease, new and startling theories are constantly springing up to account for pathological conditions formerly referred to entirely different causes. The growth of the germ theory, and the discovery of certain bacteria, invariably present in certain diseases, have entirely modified the views once held in regard to the nature of such diseases. Phthisis, diphtheria, cholera, typhoid fever and malaria, have each their specific germs to which pathologists assign certain functions in the production and progress of these diseases. Since it has become the custom to refer all the so-called zymotic diseases to certain micro-organisms, it is not surprising that other pathological conditions should come to be referred to similar causes. In former times croupous pneumonia was universally regarded as a purely inflammatory disease which could be invariably referred to the influence of cold. Within the past few years the idea that croupous pneumonia is an infectious disease, has been gaining ground. The recent discovery of a micrococcus of this disease has given a strong confirmation to this view of its causation. In a paper read before the "The Third German Congress for Internal Medicine," Professor Jürgensen, of Tubingen, expressed his belief in the infectious nature of the disease, and gave the reasons why he regarded the lung inflammation as a symptomatic condition. He showed that the alleged exciting cause of the disease—cold—did not conflict with the infection theory. In his experience cold had been an exciting cause in only 4.1 per cent. Professor Jürgensen also combatted the idea that pneumonia attacks by preference the strong and full-blooded. Among a population of all ages, in three-fifths of the cases, the disease occurred in those between one and fourteen years, while twice as many cases occur after forty-five as between fourteen and forty-four. He

held that the weak rather than the strong were attacked by preference. The disease he thought was increased by an increased humidity of the soil, and when the atmospheric precipitates are above the mean.

He regarded pneumonia as a disease of dwelling houses, like typhoid fever, especially affecting single houses, prisons and asylums. The direct passage of disease from individual to individual could not be denied, but this form of transmission must be exceedingly rare.

Professor Jürgensen separated the disease into three groups: first, those in which the general symptoms of infection; second, those in which the heart symptoms; and third, those in which the lung symptoms, are most prominent. He believed that the poison circulating in the blood has a special preference for the lungs, but it may disturb other organs, such as the brain membranes, kidneys and stomach.

The discovery of the micrococcus of the disease he regarded as an important step in the treatment. The fact that it is a house-plant, called attention to the value of hygienic measures. He had used iodine unsuccessfully to abort the disease. He considered antipyretics as heart-depressants. He was doubtful of the ultimate value of bleeding.

Herr Fränkel, of Berlin, in discussing Professor Jürgensen's paper, gave some interesting facts concerning the micrococcus of pneumonia. The coccus, he said, is distinguished from others by its gelatinous-like capsule, which may surround two or more cocci. Injected into rabbits they produce no uniform effect, in mice they cause pneumonia and pleurisy. The virulence of the virus was influenced by the cultures. It may be isolated by pure cultures from the human being and is inoculable in various animals. As yet experiments have not determined uponwhat the varying viulencer of the coccus depends.

It will thus be seen these new views of the pathology of croupous pneumonia do not fully indicate a definite method of treatment, but it may be argued that they introduce suggestions as to a prophylactic therapy which may prove of inestimable service.

Small-Pox in London.—Reports indicate that the city of London, England, is threatened with a small-pox plague. It is stated that the disease is alarmingly prevalent in several of the metropolitan districts and spreading from the city to the adjoining provinces, several of which are already badly infected. An idea of the extent of the disease may be gained from the magnitude of the effort which is being made to combat it. During the week ending May 10th the number of cases in the hospitals arose from 502 to 737. Since November last, the city has expended $250,000 for the accommodation of these patients, and it is now proposed to erect small-pox hospitals at a cost of $750,000, making a total expense of $1,000,000.

An interesting point in connection with this epidemic is the discussion which is going on in regard to the cause of the epidemic. The anti-vaccination party is making capital out of the scourge by pointing to its prevalence as proof of the futility of vaccination as a preventive. On the other hand the followers of Jenner denounce the anti-vaccination party and claim that the principal cause of the present spread is due to the fact that the public mind has had its faith so shaken in the efficiency of Jenner's method that vaccination has not been thoroughly enforced. The truth of the argument is undoubtedly on the side of the vaccination party, and it is justified, by the facts, in denouncing the anti-vaccinationists as enemies to the public health. No facts in science rest upon better proof than those established by Jenner, yet in a great city like London these facts are controverted by such influences that the public health is seriously endangered. It is a sad reflection upon the intelligence and influence of scientific thought in England that it has not been able to keep back the increasing tide of scepticism which is undermining the valuable work that Jenner did for humanity.

Permanent Catheterism in Cancer of the Œsophagus.—Anything which promises alleviation in so terrible a disease as cancer deserves more than a passing notice. We therefore call attention to the above method of treating cancer of the œsophagus, proposed, we believe, first by Krishaber, and carried into effect in two cases by Mr. Thomas Croft, of St. Thomas' Hospital, London. In one of these cases, a

woman æt. 45, swallowing of solids was impossible and liquids regurgitated freely. Bougies could not be gotten through the obstruction. A small, hard lump could be felt in the situation of the thyroid body on the left side. She was much emaciated. After several attempts, a tube the size of No. 5 catheter (English) was passed, which was retained four days. Then a No. 8 was passed, and subsequently Nos. 12 and 16. No. 8 was found to be best tolerated. She was fed through the tubes, and was greatly improved in condition. Two and a-half months later, owing to involvement of breathing, tracheotomy was necessitated. She wore now, also, a tracheal tube. Death ensued suddenly from slipping out of the tracheal tube at night 149 days after the insertion of the œsophageal tube. The growth proved to be an epithelial cancer, involving the top of the œsophagus and back of trachea. There was no ulceration, either at the growth or in the stomach. The second case was that of a man, æt. 42, with similar symptoms, due to a cancerous growth at the gastric end of the œsophagus. Tubes could not be passed, but under chloroform Mr. C. succeeded in passing a fine bougie the size of No. 6 catheter. The following day a tube of the same size was passed, through which the patient was fed. From this time the patient gained rapidly in flesh, the tube being changed every four or five days. In a month it was left out for a day, when it was found that the patient could easily make a meal of fish and vegetables without it. After the second month he began to decline, and died of cancerous involvement of liver and other organs. This man wore the tube almost continuously for 108 days.

The author finds tubes No. 6 and 8 best, and recommends that they be introduced every four or five days, being carefully disinfected each time. They should be closed with a plug of cotton, to prevent entrance of air. They are best introduced by the mouth, and, to avoid retching, should not be pushed too far into the stomach. The only complaint made in either case was of some irritation at the back of the tongue after the tube had been worn eight or ten days.

The author concludes that the use of the tubes is intrinsically harmless, that they may be resorted to in epithelioma of any part of the œsophagus, that they may be employed as an adjunct or substitute for gastrostomy, and finally, that they may be worn as long as the patient lives.

Miscellany.

On the Treatment of Ozœna.—The *Centralbl. f. d. Gesam. Therapie*, of February, 1884, contains an article on the treatment of ozœna, by Dr. Roth, of Vienna. He objects to the general use of the term, as applied alike to all the conditions which may cause the particular symptom, and he would use the term ozœna only for what he calls the genuine variety, characterized, not by any decay of the bones or soft parts, but by hyperæmia, and hypertrophy of the mucous membrane, with increased quantity and diminishing fluidity of the secretion, which rapidly dries and hardens into cakes. The mucous membrane is often found in parts in a state of atrophy, which seems to be the secondary condition of the foregoing hypertrophy; and this atrophy may extend to the turbinated bones, which will then present no trace of their previous form of structure. The fœtor results from the accesss of germs to the secretion, as has been proved by experiment. When the anterior and posterior nares have both been stopped, so that no air has been permitted to enter, the fœtor has failed to appear, but has been detected after the secretion has been exposed to the air for some time, when micrococci and bacteria have been found in it in great numbers. The proper name for such an affection is rhinitis chronica atrophicans fœtida, and the indications of treatment are to loosen and remove the secretion, to restore the mucous membrane to its normal condition, to remove the odor, and to cure any prevailing dyscrasia. Dr. Roth effects those ends by means of plugs of cotton wool, charged with iodoform, which he introduces into the nostrils at night and removes in the morning. They act as a disinfectant, remove the secretion, and exercise salutary pressure on the mucous membrane, irritating it slightly, so that an increased quantity of blood is brought to it, and the secretion becomes more fluid. After the removal of the plug the nasal cavities are washed out with a solution of thymol, carbolic acid, or chlorate of potash, combined with alum or tannin, by means of a special nasal spray, which conveys the fluid to the very back of the nose. Special causes must be removed according to their indications, but in the case of tuberculous affections, the local treatment should be confined to disinfection, and reliance should be placed chiefly on general dietetic measures. Dr. Roth concludes by remarking that only those cases which

come under treatment in the early stages of hypertrophy are curable, but that, unfortunately, this obstinate and peculiarly objectionable complaint is generally first seen when atrophy has already begun, and when the treatment of the fœtor is all that can be hoped for, until the mucous membrane, with its glands, is completely destroyed.—*London Med. Record.*

THE DIAGNOSIS OF HYSTERICAL HEMIPLEGIA.—In a clinical lecture which M. Marie has recorded in the *Progres Medical* (No. 11), the Professor describes a characteristic case of hysterical hemiplegia. The patient was a young woman aged nineteen, who had some manifestations of hysteria at the age of sixteen, but had since remained well. On the day following a somewhat severe shock, caused by a shelf falling on her during sleep, she was suddenly seized with right hemiplegia without any warning at all. When she presented herself at M. Charcot's clinique three days later, the leg had already improved somewhat, but the arm hung by her side; she could extend it a little and could just move the fingers. There was no rigidity. She dragged the leg a very little in walking. The face was not paralyzed. The tendon reflexes were rather diminished on the side affected. There was loss of common sensation and loss of the muscular sense in the right arm. The temperature of this arm, too, was distinctly lower than that of the other. The absence of any paralysis of the face and the co-existence of loss of sensation and of muscular sense enabled M. Charcot to exclude a cerebral lesion, and in the same way a spinal lesion could be dismissed, as had that been the case, the anæsthesia should have been on the side of the body opposite the motor paralysis. The application of the Faradic current for a few minutes sufficed to entirely dispel the motor and sensory paralysis.—*London Med. Times.*

ITCHING IN BRIGHT'S DISEASE.—Mathieu (*These de Paris*, abstract in *Journal of Cutaneous and Venereal Diseases*, vol. i, No. 10) states as follows: 1. During the course of Bright's disease itching is experienced unconnected with any cutaneous eruption, and sometimes invading every portion of the integument. 2. This symptom may be described as occurring in three different forms—first as itching; secondly, as horripilation; thirdly, as formication. 3. These sensations are a frequent accompaniment of Bright's disease. They are complained of at various periods. They may be felt both at the onset and during the course of the confirmed malady. 4. When met with at the commencement, they rank as an important symptom, and one of great semeiological value. They coincide at this period with the frequent micturition, the cramps, the palpitations, the disorders of hearing, the epistaxis, etc.; and may precede the appearance of œdema and albuminuria, thus serving without any other aid to place the physician on the right diagnostic track. 5. Coming on at a later period, they merely constitute an additional and conjoint symptom of the disease. 6. The pathology of this phenomenon is as yet based upon hypothesis. It represents a disorder of the sensory sphere, due probably to the irritation produced at the terminal extremities of the nerves by refuse material retained in the blood through failure of the eliminative functions of the kidneys.—*London Medical Record.*

ELECTRICITY IN PARTURITION.—Dr. Kilner read a paper before the London Obstet. Society, April 2 (*Brit. Med. Journ.*, April 26), on the use of the induced current during parturition. The effects of the current were the relief of pain, prevention of fatigue and *post-partum* hæmorrhage, equalization of the pulse, increase in frequency and strength of the uterine contractions, and the prevention of vomiting. The author now employs the coil in nearly all cases. In about three hundred cases, *post-partum* hæmorrhage only occurred twice. The coil sometimes failed to increase uterine contractions when most needed. After its use for an hour or an hour and a half, it exercised its sedative action, and no longer increased the contractions. In some cases it produces violent and almost continuous contractions. In one case a contraction lasted fifteen minutes. It had no effect in diminishing after-pains. Dr. Kilner compared its action with that of ergot, which should never be used to accelerate delivery.

THE TREATMENT OF RUPTURED PERINÆUM BY IODOFORM.—A recent number of the *Zeitschrift fuer Geburtshuefe and Gynækologie* contains an article by Dr. C. Behm on the above subject. He points out that in the region of the vagina and perinæum the efficient application of the ordinary kinds of antiseptic dressing is very difficult, if not impracticable, on account of the unavoidable fouling of them by urine and fæces. Iodoform has the property of closely adhering to wound surfaces, over which it forms a felt-like covering, difficult of detachment. It is, therefore, peculiarly suited to the needs of the ano-vulvar region. The method which Dr. Behm recommends is the painting the surface of the wound with "iodoform-collodion" (iodoform one part, flexible collodion ten parts). He believes that the protective film thus formed does not act as a foreign body and prevent primary union, but that, on

he contrary, by checking secretion, it favors his mode of healing.—*Medical Times and Gazette.*

THE TREATMENT OF ACUTE DELIRIUM—A writer in the *Union Medicale* gives the following summary of the treatment of acute delirium as recommended by M. Ball and M. Chambard: See that the light in the room is moderate, and that the patient is freed from every occasion for excitement or agitation. Give him baths of a moderate temperature during the early period of the attack and belladonna during the second period. In the asthenic forms of acute delirium, tonics of various sorts should be given, especially the preparations of cinchona in tolerably large doses. Redden the skin by means of sinapisms, mustard foot baths and frictions with a harsh brush. Act on the bowels with purgative enemas. If the patient refuses food, resort to nutritive injections and to M. Fernet's procedure, which consists in introducing the tip of a small spoon, made for the purpose, into the nostril, pressing it back gently and allowing the liquid food to run from it into the nostril, from which it will follow the inclined plane of the nasal fossæ and fall directly into the pharynx, so that it will be swallowed whether the patient will or no.—*New York Medical Journal.*

OVARIOTOMY IN INFANCY.—*Dr. Roemer*, Assistant Surgeon to the Augusta Hospital, Berlin, has recently published in the *Deutsche Med. Woch.*, a case of ovariotomy performed by him on a child aged one year and eight months. At its birth the midwife observed that its abdomen was much distended. There was little difficulty in diagnosis and the pelvis was readily explored through the rectum. The tumor was removed last August under corrosive sublimate spray; it was "of the size of a child's head," and there was slight adhesion of the omentum. The pedicle was long and thin and was secured by a double catgut ligature. The right ovary was the seat of disease, the left was perfectly healthy. The tumor was dermoid, containing hair, bone and cartilage. After the operation the child was tied gently but effectually on to its cot and opiates were given when required. It was fed on cold milk and wine. The highest temperature was 101.6°; this point was reached on the evening of the second day. On the fifth the child's bowels were freely opened by five minims of castor oil administered twice; on the twelfth, the abdominal sutures were removed. The child recovered perfectly. Dr. R. gives the following statistics of ovariotomy performed on children. One of the youngest cases next to his own was under the care of Dr. Neville, of Dublin. The patient was two years and eleven months old but only survived the operation for two hours. Busch operated on an infant aged two, Alcott on a child aged three; both cases died. Schurntz operated successfully on a child aged four; Barker on two and Knowsley Thornton on one aged seven; and Spencer Wells, Cupples and Chenoweth, each one child eight years of age.—*Brit. Med. Journ.*, April 12.

PROPER MEDICAL EDUCATION.—In a paper read before the Medical Society of the State of Pennsylvania, on May 14th, Henry Leffmann, of Philadelphia, said:

The present system of medical education is not the result of efforts to meet the needs of the community, but is largely an irregular development. The reforms which medical colleges have adopted have been mostly unwilling concessions to public sentiment. The seven-fold revision of branches has nothing to recommend it but antiquity; it is not a convenient, nor a scientific division of the subject. Under the arrangement, some of the departments of the college course are overcrowded, others have not sufficient matter to occupy the time assigned. Departments like hygiene, mental and nervous diseases and medical jurisprudence, have developed so of late years that they might properly be taught by separate chairs, and not made merely subsidiary to other chairs, or limited to spring or fall lectureships. The extension and success of post-graduate schools indicate the direction in which the improvement of the curriculum should be made.

Higher specialization is the necessity of the time. The success which has been attained by dentistry, shows that other departments such as otology, laryngology, etc., might with advantage be pursued independently. There would be no reasonable objection to establishing the degrees of Doctor of Otology, Ophthalmology, and so on, commensurate with the degree of Doctor of Dental Surgery.

A preliminary training for the student before entering on the study of medicine is so obviously necessary that it need not be argued.

The final work of medical reform will be accomplished when the college is made merely the instructor, the license to produce being given by an official board of examiners after a written public examination.

PYROLIGNEOUS ACID IN THE TREATMENT OF RINGWORM.—At a recent meeting of the French Academy of Medicine M. Besnier (*Gazette Hebdomadaire de Medecine et de Chirurgie*) reported on a memoir on the treatment of the tineæ, by Dr. Cramoisy, of Paris. Alluding to the necessity of reaching the

depths of the hair follicles in cases of affection of hairy parts, M. Cramoisy expressed the opinion that epilation was usually of little avail, in consequence of the difficulty of removing the hairs entire, rendered brittle as they were by the action of the parasite. He would therefore discard the practice and seek for some penetrating agent, and this, he thought, was to be found in pyroligneous acid. M. Besnier remarked that pyroligneous acid was not inferior to a number of the applications in common use for tinea of the varieties that usually did well, but that he could not admit that it had any superiority over the others. As for favus and the intractable forms of trichophytosis, no application could take the place of a thorough mechanical removal of the parasite and the exfoliation of those layers of the epidermis in which it was lodged. He therefore saw nothing special to be gained by the use of pyroligneous acid, and moreover, it was necessary to inculcate caution in its use. It should not be applied to large surfaces at a time, as might produce denuded spots that would be susceptible of inoculation.—*New York Medical Journal.*

Nail-Biting and Heart Disease in Children.—Dr. R. J. Clark, of Monticello, Ind., writes to the *New York Medical Journal* as follows:

I desire to call the attention of the medical profession to a peculiar symptom I have noticed in three cases of valvular disease of the heart in children.

The patients were all females, aged nine, ten and thirteen years, and each was affected with mitral insufficiency, which was produced by rheumatism. The peculiar symptom or habit to which I refer is biting the finger nails off very close on each hand. Each patient, when her attention is not called to something else, constantly keeps one hand or the other near the mouth and bites off the nail of each finger as far down as possible.

I would like some physiologist to explain the pathology of the habit. It is a question with me whether or not there is any connection between the heart trouble and the habit. I desire all members of the profession who may read this card to examine their patients who have valvular disease of the heart, and notice whether or not they are addicted to this habit. I have never noticed it in adults who have valvular disease.

Fatal Meningitis after Enucleation of the Eye.—Mr. Arthur Benson showed the brain, and read the notes of a case of meningitis which had occurred in a girl aged seventeen, after enucleation of a shrunken eyeball, the result of a second purulent inflammation excited in an old blind staphylomatous eye. Headache, vomiting, etc., began on the day after the operation. On the fourth day a bright erysipelatous-like blush occurred on the eyelids, nose and both cheeks; it disappeared in thirty-six hours. There was no discharge from the socket of the eye which had been removed; but on the day that the red blush was first seen, there was slight secondary hemorrhage from the wound. Death by coma occurred on the eighth day, and the necropsy confirmed the diagnosis of purulent meningitis, the whole surface of the pia mater being covered with lymph and pus. A summary of nine other cases, of all of which the author could find records, was given; and, of the nine, only two were known to have occurred after enucleation of the eyeball in a state of purulent panophthalmitis, while four were known not to have been purulent, and in three the condition of the eye was not stated. Mr. P. S. Abraham had made sections of the optic nerve and surrounding tissue, taken at a distance of about one cubic centimeter from the foramen. The nerve was profoundly altered. The space which the interfibrillar prolongations inclosed was occupied by a continuous granular material freely interspersed with nuclei. The connective tissue of the framework was itself filled with proliferating cells, massed together in some places. The sheath of the nerve was thickened, and toward the outer boundary the fibrous bundles were separated by spaces containing numerous small cells and nuclei; and further out still, these were sufficiently abundant to be looked upon as purulent deposits. Some of the sections were treated with methyl-blue, and by this means he thought he could detect microorganisms among the pus cells and between the fibrous bundles. A complete examination, however, had not yet been made. Sections of the kidneys showed marked hyperemia, the vessels being largely distended with blood, and bulged in places. No extravasations had been seen. The urinary tubules were quite occluded by the swollen and granular epithelial cells, which had lost their marginal boundary or contour. The ureters were studded with collections of inflammatory cell-growth.—*British Medical Journal.*

Practical Suggestions Upon the Alimentation of Patients Suffering from Dysphagia.—Dr. D. Bryson Delavan read a paper before the New York Academy of Medicine (*New York Medical Journal*, May 24), the object of which was to direct attention to the morbid conditions with which dysphagia might be prominently associated, to point out its influence upon the course of such conditions, to discuss certain measures of relief not

commonly made use of, and to urge the importance of resorting to such measures for their effect upon the disease, for the prolongation of life, and for the comfort of the patient. The causes of dysphagia were either organic or functional. Among the organic derangements which might lead to dysphagia he mentioned tuberculosis, cancer, syphilis, diphtheria, amygdalitis and retro-pharyngeal abscess; among functional causes were spasm from any cause and paralysis. The general indications in treatment were: To secure rest, to avoid pain, to protect the parts from irritation, and to sustain nutrition. The means of administering nourishment were by the rectum and by the mouth, rectal alimentation being specially of service in cases in which, if food could be carried to the stomach, the stomach nevertheless rebelled. But the chief point which the author wished to make related to the importance and manner of nourishment by means of a simple apparatus for conducting food into the stomach or beyond the point of obstruction in the pharynx or œsophagus. By this means the indications before mentioned would be at once fulfilled. Rest would be secured, pain and injury avoided and nutrition maintained. Dr. Delavan then described a very simple apparatus, to be used as a stomach pump. It consisted of a soda water bottle, with a rubber cork containing two perforations, into one of which was introduced a small soft rubber tube and into the other another like tube, to which was attached the bulb of a Davidson syringe. Pressure upon the bulb would cause the liquid nutriment in the bottle to flow out of the first tube. On the end of this might be attached a suitable instrument for introduction through the stricture—as a No. 9 to a No. 13 catheter. If necessary to be introduced through the nose, a small-sized soft-rubber tube might be used. This apparatus was modeled after that of Dujardin-Beaumetz, but was much simpler and less expensive. The introducduction of the catheter was much easier and less uncomfortable to the patient than the introduction of the ordinary stomach tube, and, with a little experience, the instrument might be employed by the patient himself. Its introduction would be facilitated by dipping it into mucilage and having the patient swallow mucilage. The details of the use of the instrument and the importance of artificial alimentation in the various affections alluded to were considered.

Statistics of Ear Diseases.—Dr. Bürkner, from tables which he has constructed from cases observed by himself, and from numerous statistical reports published by others (making a total of 58,645 cases) arrives at the following conclusions: 1. The most frequent causes of diseases of the ear are catching cold, affections of the nose and pharynx, and the existence of acute infectious diseases. 2. The predisposition to these affections increases from birth to the fortieth year, and diminishes from then to old age. 3. Men suffer from diseases of the ear more than women in about the proportion of three to two. 4. Of the entire number of cases, in about 25 per cent. the outer ear is affected, in 67 per cent. the middle ear, and in 8 per cent. the internal ear. 5. The left ear is more frequently diseased than the right, in the proportion of five to four. 6. Acute affections of the middle ear occur seldomer in summer and autumn than in spring and winter. 7. Of the entire numbers of diseases of the ear treated in the polyclinics (outpatient department), about 53 per cent. are cured, 30 per cent. are relieved, 7 per cent. remain uncured, and 0.3 per cent. prove fatal. Dr. Bürkner points out that the worth of such statistics is much diminished by the fact that the cases are treated at the polyclinic, so that it is difficult to follow the course of a great number of them, as would be expected also from more males than females forming the subject of them. The proportion of cured cannot also be exactly given, for while many aurists regard a case as cured, even when the completely normal hearing-distance has not been restored, the others would only place it amongst the improved.—*Centralbatt fuer Chirurgie*, March 29th.

Rupture of Both Quadriceps Extensor Tendons.—Two cases of this accident have recently been recorded. In the first case (*New York Medical Journal*, December 29th, 1883), the patient, ten years ago, fell, detaching the quadriceps extensor on the right side from the patella. Six years later he had another fall, when a similar accident occurred on the left side. A year ago the right knee-joint became the seat of acute arthritis, was opened and washed out several times, and subsequently healed. At the present time the quadriceps extensor femoris on either side appears to be quite absent, so that the finger can be thrust deeply behind the upper border of the patella, and rest well in the inter-condyloid notches. On a level surface, the patient walks fairly well, and he has very few falls. If the legs are flexed, he cannot extend them at all. The right leg can be extended to 170° and flexed to 75° passively; there is much grating, and the patella is fixed; there are several cicatrices about the knee. The left leg can be flexed and extended pas-

sively through normal arcs. The second patient, seventy-two years of age, was recently shown at the New York Surgical Society (*Phil. Med. News*, April 12th). He had ruptured both his quadriceps extensors, producing an abrupt depression above the upper margin of the patella on both sides, sharp edges indicating where the aponeuroses had not been ruptured, and furnishing two strong fibrous bands which enabled him to make some extension of the limb at the time of the injury. There was also a good deal of extravasation. The accident was caused by slipping upon a piece of ice, one knee giving way, and the other tendon rupturing almost immediately afterwards. The patient was treated by placing the limb in a straight position; a large amount of effusion took place in one joint, but not in the other. The injury occurred three months before, and the man is able to walk slowly both tendons having united equally well.—*London Med. Times.*

Reindeer Tendon as a Ligature.—Dr. Putiloff, of Omsk, in Siberia, reports that he has found the thread made from the tendon of the reindeer, for sewing, in Siberia, a highly useful substance in surgical practice. For this purpose, it is first steeped in ether for 24 hours, and afterwards, for the same time, in a five per cent. carbolic acid solution. Thus prepared, the tendon is found to be stronger than catgut, and as soft as silk, and is completely absorbed in the wound.—*Centralblatt fuer Chirurgie.*

The Treatment of Hepatitis and Hepatic Abscess.—After pointing out the difficulties of diagnosis of hepatic abscess, and how utterly erroneous are the descriptions given in the text books, Dr. Manson ("China Customs' Medical Reports for 1883") describes his operative treatment. An abscess in the liver, he argues, ought to be treated exactly as an abscess anywhere else would be. The object of the present communication is to show how a free opening may be made into a deep-seated abscess without the danger of profuse hæmorrhage or of setting up peritonitis, and without incurring many other risks that might well be urged against the operation. Having ascertained the presence and site of the abscess, Dr. Manson punctures with a large trocar and cannula; after withdrawing the trocar he passes down the cannula a long stilette, on which, by means of a small eye at one end and a piece of string, he has stretched a piece of perforated india-rubber tubing; whilst inserting this he withdraws the cannula, so that the rubber tube is grasped tightly by the tissues. On cutting the string which keeps this stretched, it tends to rebound towards the fixed end, *i. e.*, towards the abscess cavity; the stilette is next withdrawn, when the wound, both in the liver and abdominal wall, will be found to be securely plugged by the tube. This can then be connected with a bottle to receive the discharge which at first would be too great to be merely received into the dressings. The whole operation is done under antiseptic precautions, and one of its not least advantages is that it can be done by a man single handed.—*London Med. Times.*

The Treatment of Gonorrhœa by Open Wire Bougies.—Gonorrhœa is a specific catarrh of the mucuous lining of the urethra—a condition in which there is rapid inflammatory cell-proliferation and exudation of fluid from the mucous surface. These catarrhal changes necessarily begin at the anterior extremity of the urethra, and travel backwards. The fossa navicularis suffers early and severely; and, backwards along the course of the passage, another part that is severely affected is the sinus of the bulb. These two parts are wider than the parts of the canal immediately behind each, and so small portions of fluid are apt to lodge more persistently there than in other parts of the canal.

In the local treatment of this affection it is obviously very desirable to keep separate the inflamed mucous surfaces. The condition is in many respects analogous to a moist eczma intertrigo, where cure is indefinitely postponed unless the surfaces are, by suitable dressing, maintained apart. The injections in gonorrhœa that have been most successful are those that have best fulfilled this indication of treatment, and lately Mr. Cheyne's medicated bougies of cacao-butter have given further aid in this direction. To carry out more effectually the keeping separate the secreting surfaces, I have had made open wire bougies. These are of two forms.

The first form is for the effective administration of injections. The part *a* is a short length of catheter-tube, to which

are soldered the wires of the open bougie, and to the part is also attached a short piece of India-rubber tube. This instrument being introdnced until the part is well within the meatus of the urethra, the solution to be injected is introduced by a syringe, and, when quite full, the India-rubber tube is compressed by a spring clip, to prevent the escape of the fluid. Within from twenty to thirty minutes, the injection will be almost wholly absorbed by the urethral walls, and then the instrument may be withdrawn. By this means, the injection is applied to, and kept applied to, any part of the urethra that may require it until entirely absorbed. By the ordinary method at present in use, the contact is at best but very brief; and, as the part of the passage that is most in need of treatment is usually the most irritable, the injection is, by the instantaneous reflex contraction of that part, at once driven from it into other portions of the canal.

The second form is an open wire arrangement throughout, and is constantly worn by the patient, so that the discharge may drain freely away, and not lie in the passage and give rise to renewed secretion, as constantly goes on in the ordinary treatment at present. These instruments are well borne in the urethra, and the patient pursues his ordinary avocations while wearing the second form.

The length of the wire bougies is, of course, in proportion to the distance up the canal to which the catarrhal affection has travelled; in recent cases, an inch and one-half may suffice; in older cases, it may be necessary to have it greatly longer.

Mr. Hilliard, of Renfield street, Glasgow, can supply them to any member of the profession who may be inclined to put this method of treatment to the test.—D. C. M'Vail, *Brit. Med. Jour.*, March 15, 1884.

On the Relation of Chemical Constitution to Physiological Action.—The ideal path which research should follow is one that leads from the simple to the complex. By many of those who undertake investigations, in the biological sciences at least, this path is more often left than pursued. This method of work gives us in the main two classes of results; those which are worthless and those which, though in advance of their time, are, so far as they go, good, but which derive their chief value from being suggestive. Certain investigations which have been made upon the relation between the physiological action of drugs and their chemical constitution may perhaps be classed under the latter head. Recently Dr. James Blake (*Journ. of Physiol.*, vol. i, No. 1) has recounted some experiments on this point. His first observations were published as long ago as 1839, and since then he has been adding to them. Confining himself to inorganic substances he now finds reason for thinking that isomorphous substances have a similar physiological action and that the base is the potent factor in any salt. Further he states that among the metallic elements, within an isomorphous group, the toxic power increases with the increase in atomic weight. The non-metallic elements do not, however, conform to this last rule. These points are of great interest, but thus far no one has repeated Blake's experiments. Though the chemistry of the bodies used is in this case understood, it might be urged as an objection against the work, that there is a lack of definiteness and precision in their physiological action which somewhat weakness the force of the conclusions. This, however, could not be urged against the work of Crum Brown and Fraser (*Journ. Anat. and Physiol.*, vol. ii) published in 1868. They made use of such bodies as thebaia, strychnia, morphia, etc., whose action was well marked. Their plan was to slightly alter the molecule of a given body by addition and then compare the action of the derivative with that of the original; the same change was made in all the substances used. The methyl-sulphates and iodides of the bodies mentioned were accordingly tried and it was found in every case that the toxic power of the substances was reduced, in some cases much reduced by this addition. Moreover the character of the effects produced by these derivatives was found to have changed in a remarkable way, for instead of acting as convulsants they now produced effects like curare. Curious and interesting as were these results they stimulated investigation of the subject to only a very slight degree. The most important paper which has since appeared is that by Stolnikow of St. Petersburg (*Zeitsch f. Physiol.* Chem. viii, B. 4, Heft). In this he seeks to determine the significance of the hydroxyl (HO) group in certain poisons. The plan was one of substitution by which the hydroxyl was removed and the residue of sulphuric acid put in its place. This was effected with morphia, phenol, resorcin and other poisons. In every case it was found that the change diminished the toxic power of the substance. Perhaps the most curious result was with morphia. This differs from the other alkaloids of the opium group by its action as a narcotic. When the hydroxyl group is removed from morphia, however, it not only be-

comes very much less poisonous, but when given in large doses produces not narcosis but tetanic convulsions, thus acting like strychnia. No one who uses drugs in a rational way doubts for an instant that their chemical constitution and physiological action are closely connected but the variation in the action of morphia, for instance, becoming now by addition like curare, now by substitution like strychnia, serve to emphasize the closeness and nicety of this relation in a most striking manner. H. H. D.

A Plea against Prophylactic Injections after Normal Labor.—Dr. Baruch, under this title, protests, in a paper published in the *New York Medical Journal*, January 5th, against the practice, now becoming prevalent, of employing antiseptic injections after normal labor, for the purpose of prophylaxis. "Sanctioned as it is," he says, "by some of our highest and most justly eminent authorities, the use of prophylactic injections in the puerperal period will surely become a general practice, if the subject be not calmly discussed in the light of experience. If I have roused attention to the danger which threatens the puerperal woman of the future from this practice, I shall be content. Nothing but a strong sense of duty has prompted me to venture to differ from men whose views I have always regarded with respect, from whom I have learned much in the past, and by whom I expect to be guided largely in the future, when their teachings do not conflict with the results of experience and common prudence."

Medical Items.

The American Neurological Association will hold its tenth annual meeting in New York on June 18, 19, and 20.=It is said Dr. Koch will be given a professorship in the University of Berlin.=The Board of Visitors of the Medical College of Virginia will meet in the college building on June 6th to elect professors of obstetrics, practice of medicine, anatomy, and materia medica and therapeutics.=The Texas State Medical Association at its recent meeting donated $100 to the Sims memorial fund.=Dr. W. S. Smith and Dr. B. F. Turner, of this city, have been appointed to the positions of first and second assistants to the Spring Grove Asylum.=The complimentary dinner to Prof. Stillé has been postponed to June 5th through respect to the memory of Prof. S. D. Gross.=A proposal has been laid before the German Reichstag to give Dr. Koch £5,000 in consideration of his recent work in India and Egypt=There has been a marked decline in the number of medical students in Great Britain since 1881. In 1881, 2,171 were recorded and in 1883, 1,783.=Scotland, with one-tenth the population of England, educates more than half as many medical students as are educated in England.=Lusk claims that the indiscriminate use of intra-uterine injections in the puerperal state has been followed by an invariable increase of mortality.=Sulphate of copper in 1 per cent. solution is said to be an antiseptic of the first order by Dr A. Charpentier, of France.=A Western doctor says: "Our profession is the highest and holiest on earth." What will the clergy say of this statement?=The House of Commons, by a vote of 149 to 79, refused to allow the Bill for the Regulation of Cremation to be read a second time.=Mr. Vincent Richards, it is said, has been successful in communicating cholera to animals and in discovering "that choleraic alvine discharges contain a virulent poison, which seems to be of the nature of a chemical compound, and not of an organism."=The Northeastern Dispensary of New York City has recently divided several hundred dollars among its medical staff in acknowledgement of valuable services rendered the institution.=It is stated that thirty-six woman medical missionaries have been graduated during the past year.=Dr. H. G. Piffard has been appointed a clinical lecturer on diseases of the skin; Dr. P. A. Morrow, on venereal diseases, and Dr. Newton M. Schaffer on orthopædic surgery in the medical department of the University of New York.=Dr. T. Gaillard Thomas, of New York, divides American women into two classes; one class comprises those women who desire above all things to become pregnant, and the other those who are anxious above all not to bear children.

Changes in the Medical Corps of the U. S. Navy during the week ending May 24th, 1884:

Assistant Surgeon W. Martin ordered to U. S. S. "Constellation."

Medical Inspector H. C Nelson granted leave of absence for one year.

Passed Assistant Surgeon L. B. Baldwin detached from U. S. S. "Pensacola" and waiting orders.

Surgeon H. M. Wells ordered to Naval Hospital, Brooklyn

Passed Assistant Surgeon J. M. Murray detached from U. S. S. "Minnesota" and ordered to U. S. S. "Passaic."

Passed Assistant Surgeon J. R. Waggener ordered to U. S. S. "Hartford."

Changes in the Stations and Duties of the Officers Serving in the Medical Department U. S. Army, from May 20th, 1884, to May 26th, 1884:

Hall, Wm. R., Captain and Assistant Surgeon, assigned to duty at Fort Stockton, Texas.

Wilson, George F., First Lieutenant and Assistant Surgeon, ordered to proceed to Fort Canby, Wash. Ter., for temporary duty at that post, relieving Assistant Surgeon W. O. Owen, Jr., U. S. A., who will report in person at these headquarters for further orders.

Original Papers.

THE TIME REQUIRED BY THE BLOOD FOR MAKING ONE COMPLETE CIRCUIT OF THE BODY.*

BY ROBERT MEADE SMITH, M. D.,

Professor of Comparative Physiology, University of Pennsylvania.

(Continued from page 81.)

No.	Animal.	Time of circulation.	Pulse in time of circulation.	Weig't
1.	Dog	20 seconds.	55	18 kilo.
2.	"	17 "	53	10 "
3.	"	15 "	50	8 "
4.	"	15 "	47	8 "
5.	"	18 "	44	10 "
6.	Pup	20 "	60	3 "
	Averages	17 5 "	51.5	9.5 kilo.
1.	Rabbit	14 "		
2.	"	12 "	—	3 "
3.	"	9 "	27	1½ "
4.	"	9 "	35	2½ "
	Averages	11 "	31	2.3 "

It is seen, in the above series of experiments made on dogs with about the same average weight as those experimented on by Vierordt (9.41 kilo., and 9.5 kilo.), that the mean time required by the pigeon's corpuscles for the jugular circuit is 17.5", as compared with 15.22" obtained by Vierordt for the potassium salt; while in the rabbit 11" was obtained as a mean as compared with 6.9." Consequently, in the dog nearly 15 per cent. of the time stated by Vierordt as expressing the mean time, and in the rabbit over 59 per cent. are due to diffusion.

In this connection it might be suggested that the rapidity of circulation is greater in small animals than in large, not only on account of the shorter path to be traversed, as insisted upon by Vierordt, but because small animals contain, both absolutely and relatively as to body-weight a smaller volume of blood; and since it has been shown that diffusion has something to do with the result, the salt will diffuse more rapidly into a small volume of fluid than into a large; therefore the element of diffusion is more marked in the rabbit than in the dog.

II. *The Value of the Infusion Method in Determining the Mean Time of Circulation.*—It may at the onset be admitted, with Hering and Vierordt, that if the mean velocity of the circulation could be determined for the jugular path, it would probably express the mean time required for the total amount of blood to complete the circuit of the body. For while the portion of the blood which leaves the aorta to pass through the coronary arteries to reach the right auricle follows a shorter path than the blood which passes through the capillaries of the feet or the portal system, the velocity in the large trunks is so extremely high that the difference in time in passing through two large trunks, even of such extremes of length as the carotid at its origin and the metatarsal, is so slight as scarcely to be appreciated. The great part of the time of the circulation is therefore consumed in passing through the capillaries, and the jugular path may be regarded as giving a mean between the two extremes of distance above alluded to. It therefore only remains to determine whether the mean time required for the jugular circuit has been or can be obtained by the infusion method, or by the modification which I have employed.

It has already been shown that the elements of diffusion in this method cannot be neglected since, even after stoppage of the heart, when the only remaining propelling force acting on the blood is rapidly decreasing difference in pressure between the arterial and venous systems, the potassium salt is carried around the circuit even in less time than is stated by Vierordt to be the mean normal time of circulation, and in considerably shorter time than is required for the pigeon's corpuscles. But even this time required for the circulation of the pigeon's corpuscles is far above what must be the true mean time. For we know that in all cases of movement of fluids in tubes the portion of the fluid in the centre of the tube moves with a much higher velocity than the portions in contact with the walls of the tube. It is also known that the red blood corpuscles, from their greater specific gravity, are carried into this central column of greatest velocity, and, *a fortiori*, pigeon's corpuscles, having a greater specific gravity than non-nucleated mammalian cells, will have the maximum velocity of the moving column. Consequently, the time required for the circuit of the pigeon's corpuscles will be much shorter than that required for the mass of the blood.

An experiment of Schklarewsky (Hermann, *Handbuch der Physiologie*, vol. iv, p. 315) suggested to me a means by which the minimum velocity of the blood could be obtained. He found, when particles of different densities suspended in a fluid were propelled through capillary tubes, that the particles with the greatest density moved with the highest velocity, while the lighter particles moved in the peripheral portions of the stream where the velocity was the lowest. This fact serves to explain the motion of the red blood cells in the axis stream, while the lighter white blood corpuscles move along the walls of the vessels.

*Read March 5, 1884.

If, therefore, a fluid containing suspended particles lighter than the red blood disks, and small enough to pass through the capillaries, is injected into the blood current, it may be assumed that the lighter particles will be thrown out of the more rapidly moving central current into the slower moving excentric layers.

The following experiment seems to indicate that this is actually the case: —

About 1 gram of carmine was rubbed up in a mortar with 30 c. c. of normal salt solution, poured into a conical glass vessel and allowed to stand for twenty-four hours; by this time all the larger carmine particles had settled to the bottom of the glass, and the upper layers, as proved by microscopic examination, contained only carmine granules of which the largest were smaller than the mammalian red blood cells. This was determined by placing a drop of the carmine fluid with a drop of blood on a slide under the microscope. 10 c. c. of this fluid were then injected into the external jugular vein of a dog, and the time which elapsed before the carmine particles appeared in the blood drawn from the opposite jugular vein was determined in the same manner as was made use of in the experiments with the pigeon's blood.

The following are the details of the experiment:

Experiment XI.—Dog. Weight 10 kilo.

Before Injection.

Pulse in 15 seconds.	Pressure.	Remarks
35	110	

After Injection of 10 c. c. of Carmine Fluid.

36 in first 15 seconds.	110	Carmine granules found
36 in second 15 "	115	drawn from opposite
37 in third 15 "	118	jugular in 35 seconds after injection. Pulse in 35 seconds=85.

Without laying too much stress on this single experiment, it is at any rate probable that a mean between this extreme and the maximum velocity shown by the pigeon's corpuscles will give the mean time of the circulation. Consequently, I would place the average time required to complete the circulation in a dog of 10 kilo. weight as between 25 and 30 seconds. It will be seen that this statement can be confirmed by another line of argument.

If the amount of blood driven out of the left ventricle was a constant quantity, the rapidity of the circulation would be in direct ratio to the number of pulsations of that organ. But as we know that the amount of blood thrown out of the heart at each contraction is subject to great variability, and as I have shown in the paper before alluded to, that this amount falls considerably below the estimate of the ventricular capacity made post-mortem, the attempt of Vierordt to formulate a law as to a definite relation between the duration of the circulation and the number of ventricular systoles which would agree with the numbers obtained by him as expressing the time of the circulation is not warranted by the facts in the case.

Thus, Vierordt stated that in all species of animals the time required for the completion of the circulation was the time required by the heart for making *twenty-seven* pulsations; consequently, each ventricular contraction must discharge $\frac{1}{27}$ of the entire bulk of blood in the body.

Now, according to the calculations of Heidenhain, which are generally accepted as correct, the average amount of blood in a dog is $\frac{1}{13}$ of his body's weight. A dog weighing 10 kilo. will, therefore, contain 769 grams of blood; or as the specific gravity of blood is about 1050,730 c. c. of blood. To propel this volume of blood once around the body in twenty-seven pulsations of the heart, at each contraction the ventricle must discharge 27 c. c. of blood, a quantity which is about double the amount which the ventricle of a dog weighing 10 kilo. can be made to contain.

There can be no doubt, however, though the statements of Vierordt in this connection are incorrect, that there must be a definite relation between the number of heart-beats and the time of circulation; for the application of the same line of argument to the data I have obtained gives a result which almost absolutely coincides with the figures obtained by direct measurement. In a dog weighing about 10 kilo., about 12 c. c. would be thrown out of the ventricle at each contraction under normal respiration; and as the amount of blood in the body would in a dog of this size be 730 c. c., sixty pulsations of the heart would be required to drive the entire amount once around the body. Placing the pulse-rate at 120 in the minute, the circulation would be completed in 30 seconds, a number which is identical with the figures given above.

It also appears that the number thus obtained by deduction as giving the number of heart-beats to complete the mean circulation is nearly in accordance with the number of pulsations required for the circulation of the pigeon's corpuscles; for if 50 pulsations are required for the maximum velocity and 85 for the minimum, the mean between these, 67, is near enough to the figure obtained by deduction to show that the method is nearly absolutely correct.

While there can be no doubt that an abnormal increase in the rate of the pulse, by diminishing the amount of blood thrown out of the ventricle, will lengthen the time required by the blood to complete the circuit of the body, it cannot be urged that in my series of experiments the pulse was sufficiently accelerated by the ether to cause any retardation of the circulation. For in Experiment I where the effect of the ether had passed off before the estimate was made, the time of circulation was even longer than in cases in which the narcosis was more profound.

There is one other point in which my experiments fail to confirm the results obtained by Vierordt. Although I cannot find in his paper before referred to any experiments to substantiate the assertion, he makes the statement (*Grundriss der Physiologie des Menschen*, 5te Auflage, 1877, S. 162) that moderate stimulation of the vagi lengthens the time of circulation by reducing the number of pulsations of the heart, but that nevertheless 26 contractions are here also required to complete the circuit; from which he makes the deduction that moderate irritation of the vagus reduces the number of the heart's contractions without modifying the amount of blood thrown out at each systole.

Of course, since I have not seen the details of the experiments on which these conclusions are based, it is impossible to form any opinion as to what is meant by "moderate" stimulation of the vagus.

As far as I know, no measurements of the quantity of blood thrown out from the heart during vagus irritation have ever been made, though a diminution of pulse rate by cold has been found by Howell and Donaldson (*Proc. Roy. Soc.*, No. 226, 1883) to augment the quantity of blood discharged at each systole. And if the irritation was not sufficiently severe to cause much reduction in blood pressure or velocity, it is conceivable that the pulse might be considerably reduced in frequency, but that the reduction would be balanced by the larger volume of blood discharged at each contraction. The only difference, therefore, in the phenomena of circulation during vagus irritation from the normal condition would be that fewer heart beats would be required to complete the circulation. The following experiments show this to be the case:—

Experiment XII.—Dec. 18, 1883. Dog. Weight 11 kilo. Pigeon's blood injected, and time of circulation estimated as before. Irritation of vagus with induction current commenced at moment of injection.

Before Injection.

Pressure.	Pulse in 15 seconds.	Respiration,	Remarks.
180 mm.	37	5	

After Injection and Vagus Irritation.

140 "	16 in first	15 seconds.	Vagus irritated 31 seconds. Corpuscle found in 19 seconds. Pulse in 19 seconds = 21; normal pulse in 19 seconds = 50.
150 "	20 in second	15 "	
140 "	32 in third	15 "	
120 "	48 in fourth	15 "	

Experiment XIII.—Dec. 20, 1883. Dog. Weight 14 kilo. Conditions of experiment the same as in preceding.

Before Injection.

Pressure.	Pulse in 15 seconds.	Respiration.	Remarks.
160	35	7	

After Injection and Irritation.

140	18 in first	15 seconds	Vagus irritated 44 seconds. Corpuscles found in 14 seconds. Pulse in 14 seconds = 17. Normal pulse in 15 seconds = 35.
160	24 in second	15 "	
130	30 in third	15 "	
90	47 in fourth	15 "	

HAY FEVER AND ITS SUCCESSFUL TREATMENT.—Dr. C. E. Sayers, in a paper with the above title, read before the Amer. Laryngological Ass. (*Med. News, May 27th*), sums up the following conclusions:

First.—There is an idiosyncrasy existing in certain individuals to become influenced by certain emanations of irritating substances.

Second.—The idiosyncrasy is accompanied by a chronic hyperæsthesia of that part of the nasal mucous membrane covering the inferior and middle turbinated bones, the middle meatus, the floor of the nose and that part of the septum between the limits of the olfactory membrane.

Third.— Organic alterations of these parts annuls that hyperæsthesia, preventing at the same time what symptoms the patient may be liable to in case of an access.

Fourth.—Any destructive agent will induce that organic alteration, but the galvano-cautery is by far the best, being painless, effective and devoid of all danger when used in practiced hands.

Fifth.—In order to obtain a satisfactory result, a sufficient number of applications must be made covering the entire extent of the hypersensitive surface, without which the result will be doubtful.

AN ADDRESS DELIVERED BEFORE THE GRADUATING CLASS OF THE WASHINGTON TRAINING SCHOOL FOR NURSES.

BY D. WEBSTER PRENTISS, M. D., OF WASHINGTON, D. C.

Ladies and Gentlemen:

It is my pleasant duty on this occasion, as representative of the Board of Trustees of the Washington Training School for Nurses, to bid you welcome to the graduating exercises of this our third class of "Trained Nurses:"

This school was organized in 1877 and has therefore been in operation for seven years. This is the third class of trained nurses which has been graduated—the first in 1881 when three candidates received their certificates—the second in 1883, last spring—four nurses were graduated—and again to-night we have a class of four to present themselves.

My duty here to-night is to say a few words introducing the exercises of the evening—and explanatory of the purposes and work of this institution.

When this school was organized in 1877—the "trained nurse" was practically unknown in Washington.

Occasionally, it is true, one would be brought on from New York or Boston by some wealthy family—when we outer barbarians from those centres of wealth and culture would be gladdened by the sight of this *rara avis*.

Previous to 1877, nearly all of the nursing, in fact we may say all—in the District of Columbia was done, by self-taught nurses, well-meaning friends, or superannuated females thrown upon the charities of a cold world—who take up nursing as a last resort and frequently with a feeling of being degraded.

I must not be understood as meaning that previous to this date we did not have good nurses in Washington, for many of these self-taught nurses are really excellent—young or middle-aged women—who have natural gifts for their work. I now know several of this class who are most desirable nurses. As to the other class of old ladies—brought to poverty by the sad vicissitudes of life,—I have for them the heartiest sympathy, and would be truly gratified to see them properly provided for. But as to punishing our unfortunate sick or wounded friends by placing them in their charge, I cannot consent. It is bad enough to be sick or wounded without being made the victim of an incompetent nurse or compelled to listen to the monotonous recital of "what might have been." I am a hearty advocate of "homes for the aged," but as for making the sick-room such an asylum, "angels and ministers of grace defend us." Such was the character of the material we had to draw upon for the care of the sick a few years ago when this school was established.

Now however, the condition is greatly changed. The "trained nurse" in Washington is no longer "a rare bird." We are familiar with her pleasant face, her quiet step, her steady composure, and her ready appreciation in the chamber of suffering, as we pass on our daily rounds among the sick.

The public has come to realize that the nurse as well as the Doctor should have skilled instruction in her vocation, and one who has had such advantages, is, other things being equal, to be very greatly preferred. The advantage of such an one over loved friends and anxious parents, has been so frequently proven and set forth that it has become an axiom. It is now acknowledged by all.

This comparison is made between nurses and nursing in Washington only seven years ago and the present, because I believe the Washington Training School can justly take the credit for the change.

Not only has this school furnished a limited number of *Trained Nurses*, but more important still, it has been instrumental in molding public opinion, in keeping the subject before the attention of the community, and it is only necessary that attention should be called to the matter to make apparent the superiority of skilled over unskilled service.

This difference in the state of public opinion is rendered apparent by the increased demand for the services of skilled nurses in the District of Columbia.

The demand is such that the local supply has been insufficient to fill it, and nurses have been attracted from New York and Boston to Washington to fill the need.

Another institution growing out of the Training School, and of which we may well be proud, is the "Washington Directory of Nurses."

But the *Directory* must not be confounded with the School, as it frequently is. They are entirely distinct organizations. The School furnishes the means of educating nurses; the Directory is a Nurses' Exchange where physicians and others can find a register of disengaged nurses, and where a nurse can be obtained with the least possible loss of time.

The "Nurses' Directory" is under the management of a joint committee of the Training School, and of the Medical Society of the District of Columbia. It is not a Directory of *Trained Nurses* exclusively, and this is a mistake commonly made.

All nurses are registered who can bring cer-

tificates of two physicians as to their efficiency, and of two other citizens as to their responsibility.

Any one who applies for a nurse can see these certificates and make their choice. Beyond this the Directory is not responsible, and the Training School vouches only for its own graduates.

The Directory is also of value as a means of exercising a certain amount of supervision over those who are registered.

A record of their qualifications is kept, and if complaints are made in regard to a nurse furnished by the Directory, they are investigated, and where possible the fault corrected. Frequent complaints of inefficiency result in the name being dropped from the list.

Nurses are thus, as it were, "put on their metal"—to keep themselves clear on the record.

The value of the Directory as a Nurses' Exchange is thoroughly appreciated by those who have experienced the vexatious and sometimes dangerous delay of finding a nurse without this aid.

There are now sixty nurses registered, and the demand during the past winter has been so great that several times not a single desirable nurse was disengaged.

The following report of the Superintendent, Mrs. A. R. Westfall, shows the extent of the operations of the Directory, and also that its usefulness is not limited to the District of Columbia, but extends to neighboring towns and villages:

REPORT OF SUPERINTENDENT OF WASHINGTON DIRECTORY FOR NURSES FOR YEAR ENDING MARCH 31, 1884.

"During the year ending March 31st, 1884, there have been 164 calls for nurses. There have been calls from Richmond, Va., Fortress Monroe, Shenandoah Valley, and from neighboring villages in Maryland.

During two consecutive days in January there were five calls when no nurse was available—out of 52 registered at that time.

There are now the names of sixty nurses on the list.

[Signed] ALICE R. WESTFALL, Supt.

It is proper in these remarks to refer to the work we are doing and how the expenses are met.

But I shall be very brief in order that you may the sooner reach the interesting and *intellectual* portion of the programme which is to follow.

The interest in this school has continually increased each year since its inception, as also has the number of pupils and the attendance upon the lectures. We have now a very pleasant lecture-room which is the parlor of the nurses' home at the corner of 12th and F streets.

During the past winter, the attendance has been larger than ever before, so that the capacity of the lecture-room has been taxed to its utmost to accommodate the audience. Not that the forty or fifty ladies in attendance on the instruction were all nurse pupils. In fact a majority were ladies, who took advantage of this opportunity of better fitting themselves for the responsibilities of life as mothers of families.

A provision is made in the rules of the school, whereby ladies not pupils can attend the lectures by the payment of $1.00, not a very heavy charge when it is considered that forty-two lectures are delivered in the course.

The number of pupils registered in the last annual report was twenty-nine.

But many of these for various reasons have been dropped out, so that the average attendance of pupils was about 16, the remainder of the audience being composed of ladies not pupils.

The character of the instruction given, you will find set forth upon the third page of the programme.

There are seven lecturers who give a course of six lectures upon each branch—making in all forty-two lectures. "If I do say it as should'nt," the medical staff are deserving of all credit for the zeal and energy they have shown in their labors for the welfare of the school.

COOKING SCHOOL.

In addition to the instruction imparted by lecturers, clinical instruction has been given at the Columbia Hospital, at the Freedman's Hospital, and at the Central Dispensary.

The Board of Trustees are under special obligation to Drs. Murphy and H. L. E. Johnson of the Columbia Hospital, to Dr. Purvis of the Freedman's Hospital, and to Dr. S. M. Burnett of the Central Dispensory, for the very kind interest they have taken in our pupils.

Another feature of the course are the lessons in cooking.

By an arrangement made with the School of Cookery, 1323 H street, the nurse pupils received the advantage of twelve lessons in the preparation of such dishes as are specially suited to the needs and tastes of invalids.

A very important part of the duty of the Trained Nurse consists in the care and preparation of the food of her patient.

This has been provided for by the instruction at the Cooking School, where the pupil not only is told how to prepare the food, but also puts together the ingredients and cooks them herself.

During the past year two events have

occurred which I have to announce with the saddest feelings of regret.

I refer to the untimely deaths of my colleagues of the Medical Faculty, Profs. F. A. Ashford and J. S. Beale.

I speak of their demise as untimely, for they were taken off in the prime of life, scarcely over forty years of age, when a long career of usefulness still seemed open before them.

Dr. Ashford delivered his last course of lectures in the Training School in March, 1883, when he was suffering from the disease which proved fatal May 19th following. But such was his energy and persistence in the line of duty that he still continued to work when prudence would have dictated a rest.

I shall never forget the painful effort which it seemed to be for him to give his last instruction to our nurse pupils; almost every word was interrupted by a cough, and his difficulty of breathing was distressingly apparent. It was only with great reluctance that he was persuaded to relinquish the effort and give himself a rest.

After his death, Dr. Beale, at his own request, was transferred to the Chair of Surgery, and Dr. Fry elected as Lecturer on Anatomy.

Dr. Beale finished his lectures on Surgery last winter in the early part of the session, and gave the pupils most excellent instruction.

The circumstances of his death are but too familiar to all of us.

He was stricken down suddenly—when apparently in full health—and without warning. He was visiting Providence Hospital in discharge of his professional duties when he was suddenly attacked with convulsions, and though surrounded by several of the most skillful physicians of the city, they were powerless to help, and he died within three hours. A circumstance occurred in his practice the day before his death so tragic in its character, and which so clearly illustrates Dr. Beale's character that I feel justified in referring to it.

The day before the fatal illness, a hansom drove up to his door at night containing a young lady and her mother. The daughter called the Doctor out to see her mother, who was ill. When he came to examine the lady he found she was already dead. In his anxiety to help the younger lady and save her from shock, he stood in front of the carriage holding on to the front and supporting the corpse with the other arm. In this way they drove home, nearly a mile, the daughter having no knowledge of her mother's death until the house was reached.

Dr. Beale was without his overcoat in the cold rain, the water from the hansom top pouring down the back of his neck as he stood.

He returned home soaking wet, but said nothing of the circumstances until the following day.

Thus, in the discharge of professional duty and by a heroic effort to spare the feelings of a lady in distress, he risked his own life, and probably precipitated his own death.

Dr. Beale was one of the founders of this Training School, and was a constant worker in its interest to the day of his death.

Dr. Ashford and Dr. Beale were so well known in this community both as high-toned gentlemen, and talented physicians, that no eulogy is needed before this audience. Suffice it to say that their loss can no where be more deeply felt than by the Washington Training School for Nurses.

One other point and I am done—the manner in which this institution is supported:

The instruction and advantages of the School are free to its pupils.

In consequence funds must be raised to meet the current expenses.

The resources are three-fold—namely: Subscriptions of contributing members, donations, and the proceeds of entertainments given by the energetic lady members of the Board of Trustees.

Contributing members pay the sum of one dollar each per annum, and hold an annual meeting each year when they elect the Board of Trustees.

The number of contributing members at present is about 125.

It is very desirable that this number should be increased, and it really seems with an annual fee of only $1.00 that we ought to have at least 3,000 contributing members in so good a cause.

To all of you then who are not already identified with us I extend a cordial invitation to add your names to our list, and to those who are already members I would suggest that you tell your friends what a good thing it is, and bring them in.

The Washington Training School will not soon forget the splendid Art Loan Exhibition, given for the benefit of this school a few years since, under the management of our energetic ex-president, Dr. J. M. Toner.

By the amount realized, the Board of Trustees were enabled to rent a house, which now furnishes us a "local habitation and a name."

In the way of donations, we have been remembered by quite a number of public-spirited citizens.

The most valuable single donation received this year was the beautiful oil painting of Gen. Garfield, now before you, from Mr. E. F. Andrews.

This painting is valued at $300, and a circular has been distributed explaining that it is to be sold by subscriptions of $1.00 or

more—the picture to go to the Garfield Memorial Hospital and the money to the Training School.

I would not for the world have you suspect that I am making a begging speech, but I fear I must risk that suspicion by suggesting that subscriptions for this double charity may be handed in after the exercises of this evening.

I have now, ladies and gentlemen, taxed your patience already longer than I intended, and I will bring my remarks to a close, thanking you for your kind attention.

Society Reports.

BALTIMORE MEDICAL ASSOCIATION

STATED MEETING HELD APRIL 14TH 1884.

(*Specially reported for the Maryland Medical Journal.*)

The Association met at the usual hour, the President, DR. E. G. WATERS, in the Chair.

Dr. Samuel Theobald, 104 W. Monument Street, was proposed for membership by Dr. Jas. E. Gibbons, and *Dr. H. J. Coffroth*, 330 Penna. Ave., by Dr. Wm. E. Wiegand.

HYSTERICAL THROAT.—*Dr. Smith* reported the case of a lady who imagined she had a pin in her throat. The throat was irritable and there was pain in swallowing. Examination by finger and laryngoscope revealed nothing. Dr. S. suspected an hysterical element and doubted if any pin had been swallowed.

Dr. Reinhart knew the patient and thought her decidedly hysterical.

LARGE HEART.—*Dr. King* produced the heart (referred to in the proceedings of March 10th) which was removed March 1st, the day the patient died. Patient had been attended by Drs. King and Cuddy and was 28 years old. Death was due to endo-pericarditis, the result of rheumatism of about ten years' standing. The organ was hypertrophied and dilated, and weighed on removal 46 Troy ounces; was 20½ inches in circumference, 9 inches long, 6 inches wide. Walls at thickest point 1½ inch. The left ventricle was 6½ inches long; the auriculo-ventricular opening large enough to admit freely the hand. The pericardium was attached to the entire surface of the heart, except at one point where there was a collection of about 2 ounces of serum.

Dr. Cuddy, on invitation of the society, gave a full and interesting account of the condition of the heart.

AMPUTATION OF CERVIX UTERI.—*Dr. Erich* exhibited a specimen of amputated cervix. The cervix was hypertrophied; it had had been twice before operated on but not sufficient had been removed. It protruded when the labia were opened and at one time there was procidentia. The intra-vaginal portion of the cervix was 1½ inch in length; the entire cavity of the uterus 4 inches. The knee and elbow position was assumed by the patient during the operation (this obviates danger of penetrating bladder and peritoneum) and the part was first constricted above with a tourniquet and then cut off with scissors. The object was to get off enough to leave the normal depth of the organ about 3 inches. The mucous membrane was drawn over the stump, covering it completely. The wires will be removed and union by first intention will be expected in ten days (the operation took place to-day). The tourniquet constricting the parts above effectually prevents bleeding; should, however, the circular artery be cut, hemorrhage can be easily controlled by twisting the artery.

Dr. Ashby also prefers the scissors in this operation; there will be very little hemorrhage if the incision be not carried too high.

In answer to the question "What styptics do you use?" *Dr. Erich* replied that he always carried with him cotton previously soaked in Monsel's solution, which may be placed in the vagina and held in place by a T bandage. But he had not had occasion to use it, having never had a threatening hemorrhage. In the case reported, the object of the operation was to relieve prolapse and enable the patient to conceive.

Dr. Ashby referred to a case of procidentia in which conception took place. In a patient, æt. 31, eight months pregnant, the uterus hung 1½ inch out of the vulva between the thighs all the time; the cervix measured 3¼ inches. Procidentia had existed since her 15th year. She gave birth to a child at term and died afterwards of puerperal septicæmia. Tyler Smith reports a similar case. Some suppose in these cases that the male organ enters the uterus.

Dr. Erich remarked that a woman might get pregnant with her uterus in the vagina; how she could do so with it outside without the intervention of art is a question. In the former case he thought the semen might be sucked into the organ after coition.

Dr. Reynolds thought that it depended upon position. Women with prolapse often have children. Knows a case of procidentia where the patient has children; this must be due to the receding of the womb when she lies down.

METASTATIC RHEUMATISM.—*Dr. Gibbons* reported that his case of rheumatism in which matastasis took place to the brain still continues, but has had no more convulsions. There is also albumen in the urine.

SPECIMENS OBTAINED IN THE AUTOPSY OF A WHISKEY DRINKER.—*Dr. Chambers* exhibited specimens obtained from the autopsy

of a painter, æt. 52, who had been an excessive whiskey drinker all his life and who had been sick seven months before death with gastric symptoms. There was no œdema at any time except a little puffiness under the eyes. The heart was hypertrophied. The urine contained a minute trace of albumen; death took place quietly without coma or convulsions. The liver and spleen seemed contracted. The former contained cicatrices and the left lobe was almost gone. The kidneys were also contracted. The capsule of the spleen was five or six times its ordinary thickness (peri-splenitis) and the organ was very hard. The pancreas is a mere shred of connective tissue; the ducts feel like cartilage. There were also evidences of pericarditis. The stomach was contracted and very vascular notwithstanding the specimens had been in alcohol several days. There was some doubt as to what the patient died of. Four or five organs were diseased sufficiently to cause death. The liver looks a little suspicious as to specific disease, but other signs are wanting. It is not a typical hob-nailed liver. The lungs are healthy except a little emphysema. The death certificate assigned Bright's disease as the cause of death.

The hour having arrived (10 o'clock) for the discussion of the regular subject, and Dr. Scarff being absent, on motion of *Dr. Kemp* the relation of cases was continued.

Rupture of Tendon of Rectus Femoris.—*Dr. Kemp* then related the case of a man, æt. 62, who trod on either a lead pencil or a piece of coal, and sustained an injury to the thigh, whereupon he hobbled around to Dr. K.'s office. On examination the tendon attached to the upper end of the patella seemed to be entirely torn away and had retracted up the thigh so that three fingers could be easily laid beneath the upper end of the bone. He tried to bring the parts together by bandage and applied cold water. Next day there was a good deal of swelling. On the fourth day a posterior splint was applied, and now the limb is in plaster of Paris.

In the above case the patella was in its right situation; there was no fragment of it attached to the retracted tendon, and no portion of tendon seemed to remain attached to the bone.

It was an interesting fact that this man had been treated by Dr. Kemp's father in 1847 for fractured patella, and his father had been present and assisted him on this occasion. The parts had united forming a good bony union. Dr. Kemp said a case had been reported lately in the New York Surgical Society in which rupture of the muscle had occurred but the tendon still remained attached. In the discussion which had followed the report of the case one gentleman had said he had had four such cases, in all of which the results were good.

Dr. Chambers said the case was an interesting one, since the tendon is less likely to rupture than the muscle.

Dr. Taneyhill was dubious about rupture. Had seen cases among soldiers at the battle of Monocacy supposed to be of this nature, but which were clearly not.

PATHOLOGICAL SOCIETY OF PHILADELPHIA.

STATED MEETING HELD MAY 23, 1884.

(*Specially reported for Md. Med. Journal.*)

The President, Dr. Tyson, in the Chair.

A Case of Paget's Disease.—Presented by *Dr. W. G. MacConnell* for Dr. Jos. Hearn. The breast was removed at the Jefferson College Clinic by Dr. Hearn, Saturday, May 17th, 1884. History: Mrs. Baker, æt. 39 years, has been married for 19 years, and has borne four children and had one miscarriage. No other member of her family has ever labored under any form of tumor. Four years ago, following a pustular eruption which she noticed on her abdomen, a lump was noticed in the left breast, which was the seat of a lancinating pain of an intermittent character. *Previous* to the *discovery* of the lump an *eruption* of an *eczematous nature* was noticed; it had existed some seven or eight months before she noticed the lump; the nipple at the time of the operation was thoroughly retracted; indeed had melted away; there was no axillary involvement, although there was noticed a gland at the upper and inner quadrant of the breast. On section of the breast tumor after its removal, several small nodules of a hard fibrous consistence were encountered. Microscopically I found them to be the seats of carcinoma of a scirrhus nature. The gland revealed a similar condition.

Colloid Carcinoma.—This tumor was removed by *Dr. Hearn* at the Jefferson Medical Hospital about one week previous to the removal of the other breast. History: Miss Catherine Brooks, æt. 67, general health good; family history that of phthisis; no other member of her family had ever labored under any form of tumor. About three years ago she felt a lancinating pain in the right breast; on examination she found a lump which was hard, roundish and about the size of an English walnut; it continuously tended to increase when at the end of eighteen months it had attained the size of an egg. She applied to a quack, who applied a salve which she states caused some bleeding. Two months before her admission to the hospital she states that the breast began to gather and one week previous to the operation it broke and a dark

greenish fluid escaped which was afterwards followed by the extrusion of a mass of greenish colored slough. The growth was attached to the overlying skin but not to the pectoral tissues beneath; the subcutaneous veins were enlarged and prominent; no glandular involvement existed. On section the tumor was found to be densely hard and the seat of small cavities filled with a glassy gelatinous semi-solid fluid. Microscopic examination showed alveoli filled with epithelium that had undergone fatty degeneration, not a few of them showing the peculiar laminated appearance peculiar to colloid. The connective tissue of the stroma was in a state of active proliferation due probably to the inflammation resulting from the cystic change already mentioned.

SARCOMA OF TESTICLE.—Presented by *Dr. G. de Schweinitz.* This growth was removed from S. H., aged 37, married, a patient of Dr. John Ashhurst in the Surgical Ward of the University Hospital. His mother and father are living and in good health. His grandparents died in old age, having led healthy lives. Of his two brothers and two sisters all are living and three of them had been thus far in good physical condition. One sister had a growth removed from the orbit probably a sarcoma, which is now beginning to recur. His own health has been good. He denies any venereal disease. Two and a half years ago he first began to notice a globular swelling at the bottom of the left testicle, which gradually increased in size until eight months ago, since which time the growth has been rapid so that at the time of the operation the circumference of the testicle measured $14\frac{1}{2}$ inches. Pain has been insignificant until last April, since which time he has suffered with severe dragging pain. The inguinal glands on both sides were slightly enlarged. The growth occupies the body of the testicle, being surrounded by the tunica albuginea and tunica vaginalis, which are intact. It is a large, somewhat irregular, moderately soft, blood-stained mass. In one end there is an area of cystic degeneration. Microscopic examination shows this, however, to be a sarcoma, of the mud-cell variety, the cells being moderately large, containing oval nuclei and sometimes nucleoli. In places a faint reticular network is demonstrable, producing a picture similar to the lymph-gland like round cell sarcomas.

FIFTY-FOUR amputations in one day are said to have been performed by Von Graefe during his active military service.

THE American Public Health Association will hold its next meeting in St. Louis, beginning October 14th.

REPORT OF PHILADELPHIA COUNTY MEDICAL SOCIETY.*

DISCUSSION ON THE TREATMENT OF CHANCROID AND SYPHILIS.

Dr. J. William White opened the discussion by saying that there were a few points as to which he differed from Dr. Ashhurst, and to which he would take the liberty of alluding. The treatment of chancroid as proposed by Dr. Ashhurst, had distinct disadvantages; in the first place it is very painful, and as a matter of fact it is not practicable to etherize one's office-patients, for the purpose of cauterizing chancroids. In the next place cauterization increases the liability to suppurating bubo. Cases of the latter complication had been much rarer in his practice since he had stopped the indiscriminate cauterization of chancroids, and, in fact, for several years past he had seen them chiefly in hospitals, where the cases have been cauterized before admission. Another strong objection to cauterization is that it is extremely apt to produce phymosis, and thus convert an exposed sore into a concealed one much more difficult to treat. If the prepuce were retracted and left so after cauterization of the sore, as recommended in some cases by the lecturer, paraphymosis, an even more annoying complication, would almost certainly result. Then, too, the diagnosis of the sore is rendered more difficult by the cauterization. He did not believe chancroid to be a specific sore in the sense that it is due to a special poison, producing only this form of ulceration, but thought it was due to pus contagion, owing all its distinctive peculiarities, if it could be said to have any, to the anatomical and histological peculiarities of the parts involved; he was convinced that his cases got well more rapidly when cauterization was omitted, than when it was employed. As to cases which *should* be cauterized, they included in his practice only those sluggish sores which refused to take on reparative action under milder stimulus, and those phagedænic sores which are accompanied by rapid and dangerous breaking down of tissue. When a cauterant is necessary, fuming nitric acid was, in his judgment, the one to be preferred. The majority of cases do not require cauterization, and he thought could be best treated by observing the local indications; if the ulcer is inclined to be sluggish, a ten grain solution of sulphate or acetate of zinc, or a six grain solution of sulphate of copper, or a thirty to sixty grain solution of nitrate of silver will often cause it to take on healthy action; if the ulcer is red with exuberant granulations, or surrounded by an inflamed area, then lead-water

*Dr. Ashhurst's paper was published in the Maryland Medical Journal of April 19th, 1884.

and laudanum would be indicated, or a weak solution of zinc in laudanum and rose-water. Iodoform will often effect a cure more certainly and rapidly than any other remedy, but the objection to it is the penetrating odor so offensive to many persons. He had tried all sorts of perfumes and pharmaceutical disguises without effect, and had finally adopted the plan of advising his patients to tie up a finger with some of the ointment, thus diverting suspicion from the true cause of its employment.

His experience in the Philadelphia Hospital had left him convinced that in the treatment of phagedænic and serpiginous ulcerations, bromine was the best local application; fuming bromine should be applied freely, not only to the surface of the ulcer, but also to all its interstices; it is afterwards covered by oiled lint. He had tried the so-called "horse-shoe" method of counter-irritation in bubo without much benefit, and favored pressure with a shot-bag or half-brick covered with flannel.

As to the suppurating bubo, he agreed with Dr. Ashhurst as to the mode in which the incision should be made in opening it, but said that curiously enough it was for a directly opposite reason. He made the incision parallel with the long axis of the body so that the lips of the wound would *not* gape. When the incision was made parallel with Poupart's ligament, whenever the thigh was extended on the body, the attachment of the fascia lata to the lower lip or wall of the suppurating cavity, and the attachments of the abdominal muscles and fascia to the upper wall, resulted in a wide separation of the wound, making a larger cavity to fill up with granulations and thereby delaying complete recovery very considerably.

In the treatment of sub-preputial chancroids he would hesitate, for the reasons stated to retract the prepuce and cauterize, even if it were possible to do so, which would rarely be the case; he considered the paraphymosis, which would almost invariably result, a very objectionable complication; as to packing the space between the glans penis and the foreskin with lint, he believed it in the great majority of cases to be practically impossible, without exciting a degree of pain, inflammation and hemorrhage highly prejudicial to the patient; a certain amount of lint might be stuffed in, but he doubted that it could do anything but harm. In his cases of concealed chancroid—or of balanitic or herpetic ulceration with phymosis, he said he directed patients to clean the parts every two hours, injecting with a Taylor's sub-preputial syringe, warm water and castile soap; then to wash away all the soap with plain warm water, and then finally to inject a solution of zinc in laudanum and rose-water, five to ten grains of zinc to the ounce of the mixture.

The local treatment of the infecting sore or true chancre was chiefly interesting in regard to the question of excision. If it were believed that the chancre was the first symptom of constitutional syphilis, it would, of course, be illogical to remove the sore with any idea of preventing systemic infection; but if, on the other hand, it were thought that the poison of syphilis, whatever it might be, found its way into the blood, and into the tissues from a point of original inoculation—the chancre—through the medium chiefly of the lymphatics—then it would be entirely philosophical to excise the sore in the hope of preventing constitutioual disease. This was the view which he was inclined to favor.

The argument that in the *majority* of cases excision of the sore fails to prevent general disease, does not in the least affect this view of the matter. It is to be expected that in most instances a portion of the *materies morbi* would have passed beyond the reach of the knife before producing sufficient local symptoms to attract attention. Consequently the majority of cases fail and always will fail. The possible errors due to mistaken diagnosis, or to the *post hoc ergo propter hoc* method of reasoning, were, of course, familiar to all syphilographers, but it seemed manifestly unfair to include all the reported cases of successful excision of chancre under those heads. The only ways in which the true character of a hard chancre can be determined prior to the occurrence of constitutional infection are by its microscopical peculiarities and by "confrontation," or inspection of the person from whom it was obtained. Such cases must of necessity be very rare. He had been fortunate enough to have seen two of them—in both of which the sores, which were situated on the prepuce, had been excised and no constitutional syphilis had followed. They were obtained from women with marked secondary syphilis, and were examined microscopically by Dr. Simes, who found them to possess all the peculiarities of Hunterian chancres. Even two such cases, he thought, ought to be given great weight in a fair consideration of the question.

When, however, the sores are not seen at a very early stage of their development, or when they are situated on the glans penis so that their removal will cause deformity, or will give rise to much pain or hemorrhage, he thought the chances of preventing constitutional disease not sufficient to warrant the operation.

As regards the important question of the proper time for beginning constitutional treat-

ment, Dr. Ashhurst's opinion did not seem to him to be consistent with the received facts of syphilography. It was an undisputed axiom that there is no absolute proof of the infecting nature of any given sore except infection itself, as manifested by certain constitutional symptoms. Mercury indefinitely delays or altogether prevents those symptoms, and its administration at the time recommended by Dr. Ashhurst would leave both patient and surgeon in doubt for all time as to the presence or absence of syphilitic taint. As the proper treatment of syphilis involves a prolonged course of mercury, and the surgeon is compelled to insist upon abstinence from matrimony, or, if the patient is already married, the avoidance of conception, the responsibility is very great, and therefore nothing but entire certainty would justify the beginning of treatment. Where confrontation aids the diagnosis it might, perhaps, be allowable to begin sooner—but, although doubtless it is desirable to give mercury as early as possible, it has been abundantly shown that no great harm results from delaying its administration until the roseola or at least the general glandular involvement has established the fact of syphilitic infection.

After alluding to the various theories for using mercury, he said his own plan was to give it by the mouth, in the form of the protiodide. He gave four pills a day for two days; then six pills for two days; then eight pills for the same period, and so on until the patient's gums or his posterior molars became a little sensitive, or his saliva thickened and became more profuse; then the dose was usually divided by two, or if the toxic effect had been produced by a daily dose of only six pills, the subsequent or permanent dose (the so-called "tonic" or physiological dose) was reduced to two-thirds of that, or four pills. He thus determined in each case the quantity of mercury required to affect the new formations of syphilis, as it is well known that embryonic cells or tissues had less resistant power to either therapeutic or pathological forces than the normal cells. This dose was then continued, subject to increase in case of an attack of new symptoms, for a period of eighteen months to two years. Afterwards, he said, he put the patient on the mixed treatment of biniodide of mercury and iodide of potassium for six months. He then stopped and kept him under observation, returning to the mixed treatment if any new symptom appeared, and continuing it for several months.

Going over his case-books for the past seven years, rigorously excluding all hospital and dispensary cases, and all cases which had not been under his care and observation continuously from the primary sore down to the present time, he still had notes of one hundred and seventeen cases with whose personal and family history he was entirely familiar. These cases had all been treated upon this plan. Excluding the minor manifestations of syphilis, such as trifling mucous patches, occasional papular or squamous patches, etc., he found that among these persons there had occurred the following accidents which were fairly attributable to syphilis: four miscarriages, three of which were certainly due to syphilis, and one of which was doubtful; one case of perforation of the hard palate; one of epileptiform convulsion, and two of iritis; in one case the patient lost his penis from phagedænic ulceration supervening in a hard sore at the time of the secondary outbreak, but as he had gone on a long journey and neglected all treatment this should not properly be set down in the list; not one of all the others had an eruption which betrayed him to his family or friends, and the great majority did not lose a day from their various occupations of business, pleasure or professional work. In conclusion he said that having had such results by the continuous plan of treatment, he had not thought it necessary to make any extended trial of the intermittent plan, and consequently could not speak from any large experience with it; nor did he think that without further evidence upon the subject than he had yet heard, he would modify his present plan of treatment, though the intermittent plan had some distinguished advocates.

Dr. S. W. Gross thought that too much material had been presented for discussion, as there was enough to occupy four or five evenings; he would, therefore, limit his remarks to one or two points. In regard to the treatment of chancroid, he said he would have made about the same remarks as Dr. Ashhurst. He was in the habit of destroying the ulcer, with the triple object of preventing its increase, of preventing the auto-inoculability of the discharge, or the formation of other sores in the immediate neighborhood of the primary lesion, and preventing the formation of a bubo. His practice was to touch the sore with pure carbolic acid for its anæsthetic effects, and follow this with nitric acid. A dry dressing, in the form of absorbent cotton or picked lint, was then applied, and continued after the slough had come away if the resulting sore was not large; otherwise he employed a mildly astringent wet dressing, say three drops of nitric acid to the ounce of thin mucilage, or two grains of tannin and one-eighth of a grain of sulphate of copper to the ounce of water, or three grains of chloral to the ounce, if the surface be sensitive.

With regard to iodoform, on which the preceeding speakers placed great reliance, he had

only to say that he had no faith whatever in its action. The device of Dr. White of wearing an iodoform rag on the finger is so well known in this city that it deceives no one. In his wards at the Philadelphia Hospital, during his connection with that institution, he had invariably found that iodoform dressings retarded the process of cicatrization in simple as well as specific ulcers, the granulations being rarely larger than pin-points. For this reason, with a view to induce a healthy granulating process, he had treated all such ulcers, left by his predecessor, with the nitric acid lotion,with the best results. His own empirical observations in this direction are sustained by some histological peculiarities pointed out by a German experimenter, whose name had escaped him, in a recent number of *Virchow's Archiv.* The writer shows that iodoform prevents the formation of polynucleated epithelioid cells and giant cells in granulations, and in this way accounts for the good effects of the remedy in scrofulous and tubercular granulations. From these experiments we may fairly infer that the formation of the elements essential to the rapid repairs of other granulating surfaces is prevented by the use of iodoform.

In reference to the treatment of syphilis, he agreed with Dr. Ashhurst that it should be by mercury, but he did not employ the remedy in the primary stage, because he wished to know what course each case was going to take. If the advent of the symptoms was masked or retarded, no one could tell from a prognostic standpoint what might occur afterwards. It not unfrequently happens that a man says he was treated with mercury for the initial lesion some months before, that no general symptoms have developed, and asks whether he can marry. In such a case as this, the treatment has delayed the appearance of the general symptoms, and the question can only be answered after several months of observation without any treatment whatever. For these reasons he withheld mercury in the primary stage. Before the appearance of general symptoms, he employed the blue pill where the protiodide did not agree. He was also in the habit, he said, of giving opium and tartar emetic to keep up the action of the skin, as the poison should, as far as possible, be eliminated in that way. He gave ¼ gr. of opium, $\frac{1}{20}$ gr. tart. emetic, and ⅕ gr. protiodide, or 1½ gr. of blue mass, the dose being gradually increased until the tolerance of the patient was established. He thought that the mercurial treatment should be continued for months and months, wth an occasional intermission, in accordance with the rules established by Keyes and other syphilographers.

Dr. Van Harlingen said that, with regard to the general treatment of syphilis, the ground had been so well covered by Drs. Ashhurst and White that little or nothing remained to say. There are certain problems, however, which present themselves in connection with the management of late syphilis which had not been touched upon, and which are yet of great practical importance. One of these relates to the period during which treatment should be continued in cases seen for the first time in the later stages. For instance, a patient presents himself with a single late lesion or group of lesions, of the skin, or an ulcerated pharynx, a muscular involvement, or a nerve or cerebral lesion. A few weeks or longer may suffice to remove the outward evidence of syphilis, but how long should treatment be continued, not merely to prevent relapse in the original spot, but to prevent possible subsequent manifestation of the disease in some more important spot? The speaker said that his custom in such cases is to attack the lesion with iodide of potassium, beginning with five-grain doses, rapidly increased until the lesion yields or until the limit of tolerance is reached. When the lesion yields, then mercury is to be added to the potash salt, and after a little time the latter is gradually withdrawn and mercury alone is administered for the space of at least six months after the disappearance of all signs of disease. This the speaker considered the safest method of treatment in late syphilis, and in practice he had usually found that it gives the patient permanent relief. Further observation, however, is required on this point, for if syphilis can be taken in hand at any stage and treated with the same probability of entire subsequent immunity as when treated from the beginning, the method and duration of such treatment should be settled. At present further exact investigations on this point are demanded.

Another important point is the realization of the fact that there comes a time in the history of late syphilitic lesions when specific treatment is of no avail. Specifics will remove the new-cell infiltration which constitutes the lesion, but a cicatrix may be left behind as in stricture of the œsophagus or rectum, or as a sequela of a gumma of the brain, which is as much a morbid product as the original syphilitic lesion, but is entirely unchanged by the administration of iodide of potassium or other specifics, no matter in how large doses these may be given. In such cases, huge doses of remedies are vain. The dose should be rapidly increased, held for a short time and then diminished if found of no avail, or changed for some other form of treatment. Sometimes a simple

tonic, as the tincture of iron, will cure when specifics have failed.

Dr. W. R. D. Blackwood remarked that he first saw syphilis and chancroid on a large scale while stationed at Lexington, Ky., in 1863. His division was so affected by venereal diseases as to compel military supervision of houses of prostitution, and he made a personal examination of a large number of women twice weekly for over two months, all diseased females being removed for treatment to a special hospital. He was thus enabled to connect cases in the troops with the source of infection and to test with certainty the effect of treatment of syphilis prior to the advent of a chancre in men reporting a suspicious intercourse. In no instance did such treatment avert constitutional results. As three regiments of his division were recruited from this city and Schuylkill county, he had additionally in many instances an opportunity of following up the after-history of men treated for chancre and chancroid. He invariably, during the nine years of his army experience, thoroughly cauterized all venereal ulcers of the genitals with fuming nitric acid, and with the exception of a year, during which he followed the prevailing plan of letting chancroids alone, he always does so now, being satisfied that the sore is not only thus more quickly treated, but that its tendency to auto-inoculate is controlled. Subsequent to cauterization, he used bismuth or similar mild dry powders. He frequently employed common *brown* sugar which acted nicely. He had tried as an experiment molasses and glucose, and also black and yellow washes, aromatic wine, and the usual routine dressings, but without good effect. Dr. Blackwood, after thorough trial, was satisfied that iodoform was of no value whatever, either externally or internally, in syphilis, chancroid or any other disorder. It was offensive to both patients and associates, and was used blindly by surgeons and physicians as a prevailing fashionable remedy. He let buboes alone unless they threatened suppuration, when he poulticed and incised freely. Potassio-tartrate of iron he valued highly, and the reason it failed with most surgeons was because they gave it in small doses—two to five grains. He never gave less than thirty grains—usually a drachm, four times daily. It is the most rapid blood-making ferruginous salt we have; does not constipate, and it certainly excels any other drug in controlling destructive ulceration. He added alum to it if diarrhœal action set in.

Dr. Blackwood objected to mercurial inunction in syphilis as dirty, inconvenient, and causative of eczematous disorders. He did not use iodine or its compounds in secondary manifestations, but preferred bichloride of mercury throughout, even in tertiary. In the latter stage he used potassic iodide sometimes, especially in syphilis of the nervous system. He valued stillingia very much, *but it must be a good preparation*. He saw excellent results from it whilst stationed in northern Alabama and other Southern States for five years after the war. The doctors outside the large cities there were as ignorant as the people generally, but the negroes and old women knew the value of stillingia, which is the basis of the "Cherokee cure." He always gives the compound fluid extract in full doses with the mercurial or iodide. Treatment was maintained for three years. He avoided salivation, and believed in the tonic effect of mercury according to Keyes.

Dr. Blackwood liked the hypodermic injection of bichloride, adding to it the chloride of ammonium if the patient did not strenuously object, although the operation is painful. He never had abscesses as a result, and if the needle is deeply buried this accident will not occur. He has seen many of his army patients since the war who are in perfect health, and who have now families free from constitutional taint. As the professional attendant of several houses of prostitution in this city for twelve years past, and from twenty-two years' observation, in which time he had treated a very large number of both sexes of whites, negroes and Indians, in military and civil life, he was satisfied with his method of treatment as the simplest, the quickest, and the best to insure a permanent cure in any case.

Dr. De Forest Willard said that the treatment of chancroids beneath the prepuce required extreme care. He had himself tried the plans of cleanliness and syringing and packing, and had carefully watched this form of treatment in the hands of others. "Buttonholing" and extensive sloughing had frequently followed even in hospital practice where strict surveillance

was possible; in private practice even when the individual realized the importance of strict compliance with directions, the environments were often unfavorable to frequent retiracy. He decidedly preferred to have a sore, concerning whose size and tendencies he had seen many errors in diagnosis, open and visible. The removal of a portion of the prepuce, and, as was quite frequently possible, the cutting away with it of the sore itself, was a no worse operation at this time than at any other, as the cauterization of the raw edges, during anæsthesia, was painless, and much time was in the end saved.

An apparently contracted prepuce was, as the speaker had shown in a previous paper, an easily remediable condition in young children, but as he had then said, that whenever any symptoms arose referable to this stenosis, a "prepuce freely movable over a normal glans should be secured," so now when the youth has arrived at sufficient years of indiscretion to voluntarily contract a venereal sore, and had never been able to accomplish retraction, it was sufficient evidence that actual narrowing existed, and the sooner that a healthful standard was reached, the better would be the result. He certainly would not dare to retract the prepuce forcibly and cauterize, as Dr.A. had suggested. It is claimed that chancroids are not specific sores, yet all who speak from large experience in dealing with them, will acknowledge that they are vicious, destructive in their tendencies; that they are not self-limiting, but that they are checked only by the resistant power of the individual, either aided or unaided by remedial measures. Let the patient be non-resistant from any cause, and just in proportion to his disability will be the destruction. This is not the course of simple inflammation, hence it should be met actively and vigorously.

Each one has his favorite caustic; he preferred the acid nitrate of mercury, but would state that the worst case of salivation which he had ever produced, was caused by applying it to a chancroid upon the os uteri, the liquid being permitted carelessly to trickle down the posterior vaginal wall.

In regard to tertiary syphilis, it had always been his practice to substitute a tonic course of treatment for the specific remedies,during one or two weeks of each month.

Dr. Packard thought that the term "specific" might justly be applied to the chancroid or soft sore, by reason of the peculiarities in its character and course, distinguishing it from the initial lesion of syphilis, as well as from other sores. He thought the excision of such soft sores unphilosophical and injurious, as simply enlarging the extent of diseased surface; moreover, as the action was local only, and never productive of constitutional symptoms (of syphilis) there was no adequate object to be gained by such a course. He preferred the milder caustics, and had used with advantage the stick of nitrate of silver, dipped in fuming nitric acid; this seemed to him more efficient than the nitrate alone, and perhaps less severe than the acid alone. He believed chromic acid, and the chloride of zinc, either in saturated watery solution or in paste, answered very well.

He advocated slitting up the prepuce to expose chancroids; believing that it is better to know just what we have to deal with, and to obtain ready access to the whole of the affected part. The preputial sore thus formed is under control from the outset, and need not give any anxiety.

As to sloughing sores, and their treatment by means of powdered white sugar, Dr. Packard stated that he believed he had been the first to use this article as a dressing in cases of hospital gangrene, at the suggestion of the late Dr. Le Conte, in 1864. The results obtained had been published in the *Am. Journal of the Medical Sciences*, for January, 1865. Dr. Packard was then acting as consulting surgeon to the U. S. A. Hospitals at Haddington and at Beverly, N. J., and a very large number of bad cases of this kind were under care at both places.

He thought the corrosive sublimate dressing recently proposed, might be of use in sloughing chancroids, and had had such favorable experience with eucalyptol in cases of gangrenous stumps and other wounds, that it seemed to him worthy of trial here also.

There were many other points of great interest in the subject under discussion, but he had nothing to add to what had already been said by other speakers.

Dr. Ashhurst closed the discussion.

Editorial.

THE MANAGEMENT OF THE CERVICAL STUMP IN THE PORRO-MULLER OPERATION has been one of the chief difficulties in the way of the success of this operation. The separation of the body of the uterus from the cervix during the period of gestation leaves the latter in a large and flabby condition, and makes its proper management of great practical importance. The cervix must undergo proper involution to return to its non-pregnant state. It is during this process of shrinkage that its attachments and relations are in danger of such disturbances as may lead to hæmorrhage and necrosis, which will prove very dangerous, if not fatal, to the patient. Two methods of dealing with the cervical stump are practiced, the intra and extra-peritoneal treatment. In the former the stump is carefully ligated, and then burned with the actual cautery or dressed with styptic agents. It is returned to the abdominal cavity to undergo involution. In the latter the stump is fixed in the abdominal incision by the clamp, safety pins or suture and its union with the wound invited. Experience has shown that both of these methods are more or less faulty. Hæmorrhage, peritonitis and septicæmia are natural accompaniments, and more frequently invited than where the pedicle after overiotomy is treated by the same methods. The Porro-Müller operation is an accepted surgical procedure, and as experience grows the management of the cervical stump will become a less serious problem than at present. A method which will secure against hæmorrhage during and after the operation, which will prevent leakage from the stump after its restoration to the peritoneal cavity, and which will admit of perfect drainage and complete antiseptic cleanliness during the involution of the cervix and the reparation of its wounded surfaces, will meet the indications of treatment. Quite recently a method presenting these advantages was suggested by Dr. A. F. A. King, of Washington, D. C., (*Amer. Jour. of Obstet.*, April 1884). Dr. King proposes an *inversion of the cervical stump* as a method, which offers the following advantages:

"1st. The abdominal incision may be more securely and completety closed, with a better hope of immediate union. In the absence of any projecting pedicle at the site of the abdominal incision, healing of its entire length by the "first intention" would probably occur. 2d. The cervical inversion process would allow perfect drainage from, and antiseptic cleanliness of the stump, *per vaginam*, without any exposure of the wounded surface to the atmosphere. 3d. The patency of the cervical canal (which could be easily maintained after the operation), would allow complete drainage from the abdominal cavity, or even antiseptic irrigation of the peritoneal cavity, were this latter deemed desirable. 4th. Should secondary bleeding from the stump occur, at any time, the application of styptic iron, or of the actual cautery or of a styptic tampon (?) etc., might still be practicable by the use of a vaginal speculum, and without any disturbance of the abdominal wound or invasion of the peritoneal cavity."

In other words this method keeps the pedicle outside of the abdominal cavity at the same time that it admits of a closure of the abdominal wound. The method presents the merit of being extremely simple, but as yet it lacks the force of a practical test since Dr. King has had no opportunity of proving its advantages. The suggestion is a most excellent one, and seems to offer a solution of one of the most vexed problems in the Porro-Müller operation.

THE LEGAL CASE OF DRS. BOWER AND KEATES which has excited so much interest throughout the medical profession in England has come to a happy termination by a verdict in favor of the defendants. The facts of the case are these: Drs. Bower and Keates, in professional attendance upon a case of diphtheria in a child, found it necessary to perform tracheotomy and to introduce a tube. The father of the child brought action on the ground of alleged negligence of the two medical attendants, who told him to suck the tracheotomy tube when it was first inserted, without warning him of the danger of infection. The case was tried by the Lord Chief Justice, who emphatically expressed the opinion that the medical men were quite justified in asking the father to suck the tube. The jury also expressed this opinion and returned a verdict for the defendants.

The case is of real interest, as showing the sentiments of the medical profession of England in reference to an appeal to defray the heavy legal expenses to which these physicians were subjected. An appeal was made for funds, and the response was so prompt and liberal that within three weeks the honorary secretaries in charge of the fund were forced to cry, "Hold! enough." The case is also memorable on account of its legal importance and its results to legal medicine.

MEDICAL AND SURGICAL STAFF OF BAY-VIEW ASYLUM—The University of Maryland will be represented in the medical work at

Bayview Asylum by the following gentlemen: *Surgical Staff*, Drs. L. McL. Tiffany, J. Edwin Michael, R. Winslow and W. B. Platt. *Medical Staff*, Drs. I. E. Atkinson, T. Barton Brune, J. T. Smith and W. A. Moale. The appointments by the College of Physicians and Surgeons are as follows: *Medical Staff*, Drs. J. S. Lynch, T. S. Latimer, A. B. Arnold and G. H. Rohé. *Surgical Staff*, Drs. O. J. Coskery, C. F. Bevan, J. W. Chambers and J. H. Branham.

Dr. Quinan's Book.—The Boston *Medical and Surgical Journal*, in reviewing the "Medical Annals," by Dr. Quinan, says: "We congratulate the Medico-Chirurgical Society of Maryland on having so complete a history of members of the medical profession practicing in Baltimore, so full an account of medical publications during so long a period. The profession in Baltimore cannot be accused of neglecting to put in writing their experience and their opinions, and exhibit commendable industry in writing as in practicing. The younger members of the profession in that city have a powerful stimulus to well-doing in so many examples of patient and faithful work."

This is only one of the many favorable notices which Dr. Quinan's book has received from the medical press in this country and from abroad. It seems probable, from the complimentary comments the book has received, that Dr. Quinan's work will have imitators in other cities. We trust that Dr. Quinan will feel encouraged by the success of his book to enlarge its scope and bring out a second edition at an early date.

Miscellany.

The Medical Society of the State of West Virginia has elected the following officers for the ensuing year: *President*, Dr. George Baird, of Wheeling; *Vice-Presidents*, Drs. T. A. Harris, of Parkersburg; R. R. Frey, of Terra Alta, and S. H. Austin, of Lewisburg; *Treasurer*, Dr. John A. Campbell, of Wheeling; *Secretary*, S. L. Jepson, of Wheeling; *Board of Censors*, Drs. J. H. Manown, L. C. Hunt, J. H. Brownfield, J. O. Wall, J. M. Bowcock, W. J. Bland and B. W. Allen.

The Society will meet next year at Weston.

The Will of the Late Prof. S. D. Gross, recently admitted to probate, contains a number of items of interest to the profession. The decedent makes his son A. Haller Gross, Esq., the executor of his will, which was executed on January 23 last. The executor's application for probate estimates the full value of the estate to be about $250,000.

After expressing his desire that his body shall be cremated and placed in an urn in the family burying vault in Woodlands Cemetery, and stating his reason therefor to be that he considers the burial of the dead as "an inexpressibly disgusting way of disposing of a dead human being," he then proceeds to the disposition of his estate:

"I give and bequeath my medical library, my museum and diagrams, to one of the following institutions: The Jefferson Medical College, or the Philadelphia Academy of Surgery, or the College of Physicians of Philadelphia, the choice of said institution to be made by my executor, in his free and uncontrolled discretion, provided, however, that such institution so accepting shall furnish a fireproof apartment for my medical library and shall call it the Samuel D. Gross Library. If the institution so chosen does not accept this bequest, then I leave it to one of the following: The University of Pennsylvania or the New York Academy of Medicine; also to be made at the selection of the executor, and with the same provision as above.

"I give and bequeath to one of the following institutions—the Jefferson Medical College of Philadelphia, Academy of Surgery, or College of Physicians of Philadelphia, the choice of said institution to be made by my executor in his free and uncontrolled discretion—the sum of $5,000, the principal of which is to be invested by said institution as a permanent fund, and the accumulated interest or income therefrom arising to be paid every five years to the writer of the best original essay, not exceeding 150 printed pages octavo in length, illustrative of some subject in surgical pathology or surgical practice founded upon original investigation, the candidates for the prize, which is to be called the Samuel D. Gross Prize, to be American citizens."

In a codicil to the will, written by Professor Gross himself, dated April 30, 1881, but changed, in his own handwriting, to February 1, 1884, Professor Gross makes the additional stipulation:

"I desire that all my medical books, with the exception of those mentioned in my will, and also my office bookcases, be given to the Philadelphia Academy of Surgery, in trust, to be held by it so long as it shall exist as an independent and distinct organization. At the end of that time I decree that they shall be

given to the College of Physicians of Philadelphia, or to any respectable or permanent institution that the Academy may select for the purpose, my children, if any survive, also having a voice in the choice.

"I desire that my son Dr. S. W. Gross shall bring out from time to time, as required, new editions of my work on Surgery under his own editorship with such outside aid as may be deemed necessary, he, the said editor, receiving the whole compensation, after deducting the sum or sums required to satisfy his assistants, for his labor as editor."

Extirpation of the Larynx.—Dr. E. Haber, of Berlin reported before the recent Congress of the German Surgical Society (*Med. Record May 24th*) five cases of Extirpation of the Larynx in carcinoma. Two of the patients died of pneumonia, the others were exhibited to the Congress. The author stated that some discredit was thrown upon this operation at the International Congress in London because of alleged disturbance to nutrition, but his cases had not suffered in this respect. The patients were able to drink with care by using a slightly modified Greenerbaum's cannula; one had gained thirty pounds in weight since the operation. His method of operating was as follows: an incision was first made on a level with the hyoid bone toward the diseased side, and from this another incision was carried along the median line down to the cricoid cartilage. Then the soft parts were dissected away on either side, and after the ligature of any bleeding vessels, the thyroid was divided and an inspection made to determine the extent of the disease. If the unilateral operation was deemed sufficient, it was performed by dissecting away the thyroid cartilage and removing it with a portion of the cricoid and arytenoid. In total extirpation, after dividing the cricoid cartilage, the author first tamponed the cavity with bismuth, then dissected off the soft parts and removed the cricoid, proceeding from below upward. The œsophagus and the hyothyroid membrane were then stitched together.

Iodide of Potash as an Anti-Galactagogue.—Dr. Verrall in the *Br. Med. Journal* recommends eight-grain doses of iodide of potash, combined with three grain doses of sulphate of quinine three times a day as a most valuable anti-galactagogue.

Spontaneous Fracture of Vesical Calculi.—In a paper with the above title read before the Section on Surgery and Anatomy, Amer. Med. Asso., the author Dr. J. W. G. Gouley presented a specimen of a calculus which had undergone a spontaneous fracture in the bladder. The specimen consisted of eighteen to twenty fragments of various sizes and shapes. This detritus came from a patient twenty-nine years of age who had been under treatment for some obscure vesical trouble for a year or more, and into whose bladder many instruments, soft and metallic, had been introduced. About two years after first noticing the trouble, a physician had dilated the urethra somewhat and discovered a stone. After a sound had been used for a week or two several fragments passed from the urethra. On several occasions he passed other fragments, and the rest of the small fragments were removed by aspiration. Dr. Gouley believed it a case of what is known as spontaneous fracture. The stones were all smooth, but did not present any regular facets. The fracture had evidently occurred some months before the passage of the fragments. In looking for an explanation for this phenomenon, Dr. Gouley thought the best that he could give for it was that the fracture was similar in occurrence to that which occurs in Prince Rupert's pearls. He thought it probable that a vesical calculus, might, like these little drops of gloss, be very hard and smooth, and yet, if scratched to never so slight a degree, fly to pieces. He thought the frequent introduction of instruments might have produced a slight erosion, causing the fracture.

Coccyodynia.—In exhibiting a carious coccyx which he had removed from a patient who had manifested all the classical symptoms of a very bad coccygodynia, Dr. Goodell referred to two other cases of the mimetic variety of the disease. To one patient, who suffered from very exacting coccygeal symptoms, an operation was at length proposed. As soon as the day and hour were fixed, she lost all pain in the coccyx, and had suffered no return of it during the last six years. Another very obstinate and severe case, which had a traumatic history and which had been treated for a long time unsuccessfully, quickly disappeared under the influence of an exciting family jar. —*New York Medical Journal.*

Treatment of Fractured Patella.—Dr. Jalaguier, in an eminently French, but very interesting, paper in the March and April numbers of the *Archives Generales de Medecine*, discusses the "new methods" of treating fractured patella—aspiration of the effused blood or other products, and suture of the fragments, after opening the joint—the former operation being "*une etape de transition*" between the old method, which respected the joint at any cost, and the new one, which lays it freely open. The author gives summaries of all recorded cases, and traces the histories of the two operations. It is curious to note that the line of argument against aspiration of the joint, when this operation was first introduced, is very similar to that used now-a-days against the infinitely more serious one of free incision. For aspiration met with with a very adverse criticism at the hands of the Societé de Chirurgie of Paris, in 1872, when M. Dubreuil related a case in which he had practised this operation, which was followed by formidable complications and ultimately proved fatal. It had long been recognised by surgeons that effusion, either sanguineous or not, into the knee-joint after fracture of the patella was the chief cause which interfered with the approximation of the fragments; no wonder, however, that after such an expression of opinion by the Surgical Society, the operation languished, and, indeed, never became popular in France. In England and Germany, however, it has been practised with success, and by many surgeons is even now considered the best operation in order to bring about coaptation of the fragments. The graver operation of opening the joint is legitimately a subject on which there is room for difference of opinion. Many surgeons reject the operation because satisfactory results can be obtained without it. Such a position is absolutely unassailable, and Verneuil thinks it unjustifiable to run grave risks by opening the knee, while such results can be obtained. Our author discusses all the *pros* and *cons*, and concludes his instructive paper thus: Without wishing to prejudice the fate which may be in store for this new operation, and without forgetting the remarkable successes which Lister and others have obtained, we must recognise in recent simple fractures of the patella, that suture of the fragments after free opening of the joint is a method so hazardous that it ought not to be had recourse to in the first instance. On the contrary, in certain old fractures, with a view to remedy severe functional disturbance, it may be tried, but even then the operation is not free from dangers. The author refers also to the influence of atrophy of the quadriceps muscle as a factor in the pathology of loss of use of the limb; and he remarks on the absence of any attempt to prevent or treat it surgically.

The same subject has recently been discussed by Dr. J. L. Little, who describes (*New York Medical Journal*, March 29th) a method which he has practised with success since 1863. The traumatic effusion into the synovial cavity having subsided (aided if necessary by the application of pressure), a posterior splint of two thicknesses of flannel (strengthened in the middle, under the knee, by two extra layers) and plaster of Paris, is made long enough to reach from a little above the ankle to above the middle of the thigh. Above and below the knee-joint it should be wide enough to embrace two-thirds of the circumference of the limb, but at the joint it should only just cover the condyles of the femur. The splint is further attached to the limb by a three-inch wide strip of double flannel and plaster encircling it and the limb at each extremity. Having been thus applied, the splint is maintained in position by a *dry* roller bandage firmly applied over all until the plaster has set. When the plaster is firm, the bandage is removed, and two other strips of double flannel, an inch wide, and long enough to overlap on the posterior surface of the splint, are soaked in freshly-mixed plaster, and then tightly applied cross-wise above and below the patella, while the fragments are held in position by an assistant. A dry roller bandage is then applied rapidly with figure-of-eight turns over the strips, and the surgeon then, with thumb and finger of each hand over these coaptation bands, forces the fragments into close approximation and holds them there until the plaster has set. The bandage is then removed, and the dressing is completed by applying a fresh dry roller over the whole length of the limb. The patient may sit up or get about on crutches. The dressing is not a heavy one, and the site of injury can be at any time inspected by merely removing the external bandage; if any displacement of fragments have occurred, it can be corrected by removing the coaptation bands and applying fresh ones. Very satisfactory results—including cases of bony union—appear to have been obtained by this method.—*London Medical Times.*

The Influence of Micro-Organisms in the Production of Dental Caries.—Mr. Arthur Underwood read a paper before the Odontological Society of Great Britain (*Med. Times and Gaz.*) giving the results of further investigation on this subject, made by Mr. Miles and himself since the date of a former paper read before the Dental Section of the International Medical Congress in 1881. In this they had shown that certain forms of micro-

organisms were invariably present in carious dentine; that no change resembling caries could be produced in the absence of these organisms, *i. e.*, under aseptic conditions; and that under septic conditions a change could be produced artificially, which, if not undistinguishable from ordinary caries, certainly resembled it. The fact that organisms were invariably present had since been confirmed by numerous observers. It had been stated by one investigator—Dr. Miller, of Berlin—that the dentine was first softened by acid, that the invasion of micro-organisms was only secondery to this, and that a zone of softened dentine not infected with organisms always existed in advance of that which was so infected. He and his colleague, Mr. Milles, had, on the contrary, always found that the organisms extended as far as the softening; they could not find any softened tissue which did not contain micro-organisms, and they were of opinion that the acid which softened the dentine was produced by the organisms, just as occurred in ordinary processes of acid fermentation. They had cultivated the various organisms found in carious dentine in flasks containing purified blood serum, after the method introduced by Professor Koch, and had ascertained that there were several distinct varieties, but experiments made with the view of finding out which of these were the most active agents, gave negative results. Dr. Miller had stated that he had produced, artificially, caries which he defied any one to distinguish from that which occurred in the mouth. Messrs. Underwood and Milles had repeated his experiments, and had tried several of their own, but with very partial success; for though a change resembling caries did take place in some instances, it invariably became arrested before it had gone very far. This comparative failure was no doubt caused by the difficulty of assembling in a flask or incubator experiment all the various conditions which were present in the mouth, and instances were quoted from the experiments of Koch, Pasteur and Nægeli, to show that micro-organisms, cultivated under conditions not altogther favorable, became weakened, and even lost their special attributes, so that the bacillus of anthrax, for instance, could be inoculated harmlessly. The authors of the paper claimed to have established that micro-organisms of a special form were an essential element in the production of dental caries. Food gets lodged between the teeth, and undergoes fermentation with formation of acid and bacteria; the acid destroys the enamel, the micro-organisms invade the dentine, and proliferate in its tubes, living at the expense of its organic material, their advance being accompanied by decalcification of the intertubular substance.

A discussion followed, the tone of which was distinctly favorable to the adoption of the views promulgated by Messrs. Underwood and Milles, which, it was remarked, would clear up some points which the purely chemical theory of caries did not explain, *e. g.*, the fact that the dentine was destroyed more rapidly than the enamel. And hope was expressed that the discrepancies at present existing between the results arrived at by Messrs. Underwood and Milles, and those of Dr. Miller, might soon be settled by the help of independent testimony.

The Bromides in the Treatment of a Neurotic Diarrhœa of Children.—At a recent meeting of the Harveian Society of London, a report of which we find in the "*Medical Times*," of London, Dr. Lees called attention to a class of cases, not very uncommon in children, in which the main symptom was an irresistible impulse to defecation, experienced almost immediately after taking food. Colic pain might or might not be present, but there was no sensation of weight at epigastrium, heartburn, flatulence, or other symptom of dyspepsia. The motions were usually semi-solid, not often watery or slimy, and frequently contained undigested food. Usually a motion was passed almost immediately after every meal, and perhaps once or twice more during the twenty-four hours. Dr. Lees pointed out that these symptoms were evidently due to a hyper-peristalsis of the alimentary canal, without increase of secretion, the two factors of ordinary diarrhœa being here disassociated. Such increase of peristalsis was probably due to irritation of the vagus nerve, which supplies the excitor fibers to the intestine, the splanchnics conveying the inhibitory fibers. The proximity of the nucleus of the vagus to that of the trigeminus, in the medulla, indicated the possibility that this increased excitability of the intestine might in part be due to dental irritation, the cases in question usually occurring during the period of the second dentition. Believing in the purely neurotic origin of the symptoms, Dr. Lees had treated several cases with bromide of potassium simply, without opium or any astringent, and had obtained immediate success, even in cases which had persisted for several months. The diarrhœa was usually arrested in a few days, and occasionally the children became so costive that the medicine had to be dis-

continued. Four cases were narrated, also a similar case occurring in an adult, in all of which speedy relief was given by the bromide. In conclusion it was remarked that individuals who suffered from these symptoms were often of a markedly neurotic temperament, timid, and easily frightened.—*N. Y. Medical Journal.*

The South Carolina Medical Association held its Thirty-fourth Annual Meeting at Florence on April 22nd, 23rd and 24th. The meeting was well attended and interesting in character. The annual address was delivered by Dr. R. A. Kinloch, his subject being "A Plea for Education as the Means for Unifying the Profession and Strengthening the Association." Papers were read by Dr. C. Kolloch, of Cheraw; Dr. James Evans, of Florence; Dr. O. B. Mayer, Jr., and Dr. J. M. Thompson, of Newberry, and others. Dr. Thompson reported "A Case of Septicæmia from the Bite of a Rat." The Association will meet next year at Charleston. The following officers were elected: *President*, Dr. A. A. Moore, of Camden. *Vice-Presidents*, Drs. C. Kolloch, of Cheraw; James Evans, of Florence, and T. J. McKie, of Woodlawn. *Recording Secretary*, Dr. John Forrest, of Charleston. *Corresponding Secretary*, Dr. H. D. Fraser, of Charleston. *Treasurer*, Dr. H. W. De Saussure, Jr., of Charleston.

Medical Items.

Dr. R. Bartholow claims that tannate of cannabine is second only to opium, and is the nearest approach to a substitute for the latter yet proposed.=Dr. J. W. Holland, of Louisville, Ky., has been selected to deliver the next annual address before the Alumni Association of Jefferson Medical College, Philadelphia.=The Long Island College Hospital at its recent commencement, held May 21st, conferred degrees upon forty-four candidates.=Prof. Richard McSherry, of this city, has been appointed President of the Maryland State Board of Health. No better selection could have been made.=Baltimore has 550 inhabitants to every acre in parks, whilst Washington, D. C., has only 150, and Paris, France, 13.=The President of the Iowa State Medical Society complains that legislation by neighboring States has driven great numbers of quacks into that State. Medical legislation in States adjacent to Maryland is having a similar effect upon this State.=A bill has been signed by the Governor of New York which creates a State Board of Pharmacy, and prescribes regulations for the practice of pharmacy in all the counties except New York, Kings and Erie.=The Illinois State Medical Society offers a prize of $100 for the best essay on the treatment of diphtheria, and another of the same amount for the best tabulated statement of ten cases of any disease coming under the care of any one practitioner.=Salicylate of sodium, when administered in large and repeated doses, has been followed by metro-neuralgia.=Prof. Wm. Pepper has been elected to the Professorship of Theory and Practice of Medicine in the University of Pennsylvania, to succeed Prof. Stillé resigned.=The will of the late Samuel W. Sweet, of Jamaica Plains, Mass., bequeaths $50,000 to the Massachusetts General Hospital and $20.000 to the Medical Department of Harvard College.=The U. S. Senate has passed a bill providing for the erection of a fire-proof building in Washington for the records of the army medical department.

Changes in the Medical Corps of the U. S. Navy for the week ending May 31, 1884:

Passed Assistant Surgeon F. Anderson ordered to Navy Yard, New York.

Passed Assistant Surgeon H. G. Beyer detached from Coast Survey Steamer "Blake," ordered to Smithsonian Institute for special duty.

Passed Assistant Surgeon W. H. Rush detached from U. S. Steamer "Despatch," and ordered to Coast Survey Steamer "Blake."

Passed Assistant Surgeon L. G. Henneberger detached from Navy Yard, New York, ordered to U. S. Steamer "Despatch."

Passed Assistant Surgeon S. H. Griffiths ordered to U. S. Steamer "Lancaster," on expiration of leave of absence.

Passed Assistant Surgeon M. D. Jones detached from Naval Hospital, New York, and resignation accepted June 15, 1885.

Surgeon J. C. Wise detached from Academy, and ordered to U. S. Steamer "Constellation."

Changes in the Stations and Duties of the Officers Serving in the Medical Department U. S. Army, from May 27th, 1884, to June 2nd, 1884:

Wright, J. P., Major and Surgeon, directed to perform, temporarily, in addition to his other duties, those of Medical Director Department of the Mo.

Middleton, Passmore, Captain and Assistant Surgeon, granted leave of absence for one month on surgeon's certificate of disability.

Baily, Jos. C., Major and Surgeon, now on leave of absence, is relieved from duty in Department of Texas and ordered to report to commanding general Department of the East for assignment to duty at Fort Monroe, Va., to relieve Lieut. Col. Charles Page, Surgeon U. S. Army, on July 1, 1884, from duty at that station.

Original Papers.

SOME REMARKS UPON THE TYPE OF TYPHOID FEVER PREVALENT LAST WINTER, WITH PATHOLOGICAL SPECIMENS.*

BY DR. GEORGE W. VOGLER.

Mr. President:—The following brief notes may prove of interest to those present this evening.

I desire more particularly to call attention to the unusual prevalence of typhoid fever in our city during the past winter, to the grave type of a majority of the cases, and to the unusually numerous complications.

These notes refer only to the cases that came under my notice during my service at the German Hospital, for the months of January, February and March of this year. I might state in passing that what is true of these cases is also true of those occurring in my private practice.

During the three months twenty-four (24) cases were admitted into the wards, more than half the entire number of cases treated in that institution last year. As three (3) of the above number were brought into the house in a moribund condition, dying immediately or shortly after their admission, the remarks to follow will not appertain to them.

The balance, twenty-one (21) in number, receiving treatment at our hands, may be divided into the following two classes: mitior, 7; gravior, 14; total, 21. Of the gravior died: uncomplicated, 3; complicated, 2; total, 5 deaths.

For a time there were thirteen (13) cases of typhoid fever under treatment at one and the same time.

12 of the 14 cases of the Gravior Type.	Nervous Depression.	Hyperpyrexia.	Hemorrhage.	Vomiting.	Peritonitis.	Meningitis.	Pneumonia.	Pleuritis.	Hydroa.	Arthritis.	Abscesses.	Otitis Med. P.	Parotiditis.	
Stelig.....						1								R.
Emery.....		107°		1	1		1	1			1			R.
Schlipf.....	1	1	1											D.
Kindsvater....					1									R.
Nill										1		1		R.
Bühler.....							1	1						R.
Meyer.....	1	1									1	1		R.
Murphy.....	1	1					1							D
Stoetz.....			1	1					1				1	D.
Menzel.....	1													R.
Holzworth.....	1	1												D.
Kolb	1	1												D.

R. for recovered; D. for died.

*Read before the Philadelphia County Med. Society, May 21, 1884.

My resident, Dr. Weed, kindly tabulated twelve (12) of the fourteen (14) cases of the gravior type, and the more *prominent complications* noticed in this list are: peritonitis, meningitis, pneumonia, pleuritis, hydroa, rheumatic arthritis, abscesses, otitis media purulentia, parotiditis and extreme nervous depression.

It will be seen that some of these patients were troubled with more than one of these complications at the same time.

There is no doubt in my mind that a majority of the complications enumerated are chiefly attributable to the extraordinarily long siege of inclement weather experienced during last winter.

In eight (8) of the gravior type of cases the temperature ranged between 104 and 108 degrees. The ages ran from 16 to 34 years.

In some cases in which diarrhœa was not controlled by opium and silver, resorcin in doses of three grains acted very kindly, possessing also the additional advantage of destroying the fœtor of the stools.

In those cases marked by great nervous excitement or actual delirium, and in which opium or bromides seemed of little or no avail, hypodermic injections of ten grains of muriate of quinia acted apparently as a hypnotic. In passing, I would like to state here that, in one instance, the hypodermic use of this remedy produced an abscess that gave us much trouble to heal. Our statistics at the hospital, however, show this to be a rare occurrence, as out of about 250 hypodermic injections of this remedy in various diseases, abscess resulted in but two instances.

An interesting feature noticed was that whenever the catamenia occurred it was invariably attended by an increase of temperature. In one instance (Emory), where a relapse was supposed to have taken place, the temperature ran from normal up to 103°, and gradually subsided with the cessation of the menses. This phenomenon was noticed to occur twice in this particular case.

Another matter of interest was that two of the female employees of the hospital were stricken down with typhoid fever, barely escaping with their lives. The duty of one of these women was to empty and disinfect the receptacles for the excrement, etc., and to care for the soiled linen from the typhoid fever wards. The other was employed to wash this linen. I certainly would not like to draw the moral in the first instance: "Do not use disinfectants."

Of course the treatment of the grave and complicated cases was adapted to suit each individual case. In the milder type of the disease, simple common-sense treatment was used, preferably the mineral acids, 5 or 10 drop doses

of nitro-muriatic dil., changing to the dil. sulphuric, if diarrhœa became troublesome.—Where quinia was indicated, I gave it in small but repeated doses instead of one or more large doses, rarely giving over seven grains daily. This method has always obtained the most satisfactory results for me.

Dover's powder for sleep, and opium, silver, ergot and resorcin for diarrhœa and hemorrhage, were used when necessary. Also turpentine when indicated.

A favorite method of giving small doses of turpentine, quinia, and dil. nitro-muriatic acid together, in cases where the symptoms existing demanded the need of all these remedies, was to use a menstruum of Syr. Ext. Glyc. Fld. in the proportion of ℥ss of Ext. Glyc. Fld. to ℥i ℥ss of Syrup, flavored with Ol. Gaultheriæ. This makes a smooth, pleasant and palatable mixture.

I desire to show the following specimen of perforation of the bowels, the other interesting pathological specimens having been mislaid.

Anna Stötz, æt. 20, domestic, single. Admitted into house January 28, the seventh day of the disease, having had several severe hemorrhages previous to admission. Some pulmonary complications of an acute nature also present; this rapidly disappeared under proper treatment. On the 30th profuse hemorrhages occurred, seven or eight during the twenty-four hours.

Treatment: Gallic acid by bowels; opium, ergot and silver by mouth; strychnia hypodermically. By this treatment hemorrhage was controlled and fair hopes of recovery were held out.

About the 5th of February hemorrhage again suddenly came on, which also gave way kindly to treatment. On the morning of the 10th, sudden collapse with intense pain in abdomen, followed rapidly by death.

The post-mortem examination revealed very extensive ulceration and a perforation situated close to the inner border of an ulcer some two inches in diameter, situated within a short distance of the ileo-cæcal valve.

WARNING TO THE MEDICAL PRACTITIONERS IN REGARD TO THE USE OF JEQUIRITY.*

BY M. LANDESBERG, M. D.

The medical journals have not failed to inform their readers that a new remedy has been introduced by Wecker into the oculistic therapeutics, which, by its prompt, energetic and sure action in trachoma and pannus, by far surpasses all the other methods of treatment ordinarily used in this affection. These glad tidings have been corroborated by the casual publication of notes and comments on the many excellent results obtained by Wecker and his followers by the new procedure, which consists of applying an infusion of jequirity, of a given strength, to the surface of the palpebral conjunctiva, in order to produce rapid suppuration, and by means of the latter to promote absorption of the trachomatous infiltration. The method of treatment is based upon the same idea which led to inoculation of blennorrhœic pus in cases of pannus. I have not seen any medical paper at my command dwelling upon the great dangers in which the diseased eye is apt to be involved by the process of suppuration, and by the possible excess of reaction. I have not seen pointed out the fatal consequences which may develop in some instances. The glittering side of the question has only been made conspicuous, and it has not been considered worth while to show also the reverse of the medal. That this sin of omission may prove a source of trouble and mischief to some medical practitioners is obvious. The general physician is not in the position to follow all the intricacies of the experiments with the new drug. He relies for information on his medical journal, and the latter tells him of jequirity as the panacea in trachoma and pannus. Now suppose he just has such a case under hand, which had proved rebellious to the treatment with the usual remedies. He finds jequirity highly spoken of in his journal, and he avails himself of the opportunity to win by easy means the battle and the honors connected with it. And now it happens that he makes matters worse, that the very existence of the organ is endangered by the new treatment, the full recovery of which he has expected with such confidence! But I do not draw the picture from imagination; I do not speak of possibilities, but of facts that had already occurred. I relate incidents of the practical life which were communicated to me by general practitioners from different parts of our country. There was excess of reaction in some instances, and implication of the cornea in others. Besides, I have received letters in which physicians appealed to me for information concerning the action of jequirity and the expediency of using it in trachoma and pannus, urging me at the same time to lay before the profession the results of my experiments in the matter.

In answer to the many queries, by which I feel deeply honored, I have only to state briefly as follows:—

I have not had any cause to abandon my usual method of treatment in instances of trachoma and pannus, which has still given

*Read before the Philadelphia County Med. Society, May 21st, 1884.

me the most satisfactory results even in the most obstinate and inveterate cases. My interest in jequirity has thus far been merely theoretical, and the successes reported from one side, and the failures brought forward by the other, have only served to uphold my position of objective observation. The question is by no means ripe for verdict. Only the future can show whether jequirity will gain a permanent place in the oculistic therapeutics, or will share the fate of the many other "new remedies," to sink into well-merited oblivion after a short period of dubious fame.

But if I cannot produce the results of my own trials with the use of jequirity in trachoma and pannus, I am able to give my experiences on the action of jequirity, which I have gained from experiments made by others. The issue of these experiments in nine cases, which came under my observation, indicates plainly enough the course the general practitioner has to take in regard to jequirity.

Of the nine cases above mentioned, the result of the treatment with jequirity was negative in five cases of trachoma and pannus. There was no improvement whatever, but no injury done either. Two cases presented with trachoma and pannus, deep corneal ulcerations, which were asserted to have developed during the treatment with jequirity. Before the latter had been started, patient had enjoyed fair vision. One patient, with xerophthalmus of both eyes, suffered the loss of the right eye in consequence of panophthalmitis, which had set in on the fourth day after the application of jequirity. There was not the slightest improvement in the left eye. A girl who had done nothing for her eyes up to the time of the treatment with jequirity, presented herself six weeks later with the following conditions: Lids thickened; palpebral conjunctiva intensely swollen, covered thickly with large granulations, and furrowed with tendinous cicatrices. Both corneæ opaque and vascular.

DIPHTHERIA, AND ITS TREATMENT BY THE APPLICATION OF BLISTERS.

BY E. M. REID, M. D., OF BALTIMORE, MD.

In consequence of the recent publication in several of the medical journals throughout the country, of the successful treatment of diphtheria by the application of blisters, I have concluded to give for publication a paper which I read before the Medical and Surgical Society of Baltimore, nearly four years ago, and also before the Academy of Medicine April 1st, 1884, in which were given my views of diphtheria, with my own experience in the treatment of it by blistering.

Diphtheria is a constitutional disease, resulting from a poison which has found its way into the blood, producing certain changes and symptoms, and frequently manifesting itself by an exudation upon the mucous membranes of the air passages. That it is a constitutional disease I think the majority will agree. The fact that persons who have been exposed to the poison, and upon whom it has commenced its work, generally suffer from indisposition, depression, giddiness, headache, loss of appetite, fever, and in some instances vomiting, diarrhœa and convulsions, for a time varying from six or eight hours, to as many days, before any exudation appears, seems to me sufficient to demonstrate that it is a constitutional disease, resulting from some poison which has found its way into the blood.

Now comes the tug of war. What is that poison? I presume there is nothing that would delight the world more than for some one to determine positively the real nature of malarial, and diphtheritic poisons. How is this to be accomplished? By thought and investigation; not by one but by many; therefore, if I should venture an opinion, at least on the operation of the poison, you will know that it is for the purpose of getting an expression from the many, so that if the truth has not been reached, it may be as speedily as possible.

Austin Flint, in his Practice of Medicine, under the head of causation, boldly asks the question: is the special cause a contagious virus or an infectious miasm? He then treats it as a question of a communicability, leaves this *sub judice* and then tells you that the special cause seems to require auxiliary causes, at present unknown, which are peculiar to certain localities. Many others entirely evade the expression of an opinion of the nature of the poison. Now let us for a moment consider the idea first advanced in 1858 by Prof. Laycock, that the poison of diphtheria is of a parasitic origin, his view receiving the support of Iodin, and which was sufficient to attract the attention of some of the ablest minds of the world; among whom was Oertel, who maintains with great force, that certain definite forms of vegetable life, especially *spherical bacteria*, and the smallest forms of *bacterium termo*, are invariably associated with the diphtheritic process and that certain patches which appear on the mucous membrane at the very commencement of the disease contain growths of micrococci, always to be found in diphtheritic membrane, and also in the blood. And now I will here quote verbatim from Morell Mackenzie, page 112, (Wood's Library) Diseases of Air Passages: "According to Oertel and some other experimentalists, after the inoculation of the different tissues of animals

with diphtheritic exudation, it has been found that the micrococci force their way among the cellular elements, crowd into the blood and lymph vessels,which they render impermeable, infiltrate the muscles, and lead to their degeneration, and even reach the kidney, where they excite the inflammation which is so common a complication of diphtheria. Eberth has gone so far as to declare that without micrococci there can be no diphtheria; while in Italy Giacchi believes that a parasite is as necessary in the pathogenesis of the disease as the oidium vitus is in the production of disease of the grape. Letzerich has found another fungus—zygodesmus fuscus—which he believes is the essential cause of the disease.

The conclusions of Oertel and Letzerich have, however, been directly controverted by Senator, who has found the leptothrix buccalis in diphtheria, and who considers the minute round bodies described by Oertel (as the spherical bacteria), to be the spores of the leptothrix. According to Senator the same fungi are found in diphtheria as in ulcerative, aphthous and mercurial stomatitis. The importance of the presence of fungi in diphtheritic deposits is controverted by Dr. Beale, whose authority as a microscopist must carry great weight in this country. This observer maintains that vegetable germs are present in every part of the body of man, and the higher animals, probably from the earliest age in all stages of health. Millions of vegetable germs are always present on the dorsum of the tongue and in the alimentary canal. Dr. Beale further states that active bacteria introduced among the living matter of healthy tissues will die, although the most minute germs present which escape death may remain imbedded in the tissue in a perfectly quiescent state. He thinks also that there are very few morbid conditions that are unquestionably solely due to the multiplication and growth of vegetable fungi. From this array of assertions and contradictions I do not think it would be safe to accept any one theory as a whole. That it is an infectious miasm I am inclined to believe, but whether a vegetable parasite constitutes an active element in the composition of the miasm I am unable to decide. Oertel who handles the subject with so much confidence, says that according to certain experiments, diphtheria fixes itself at the point of inoculation—the centre of infection, if we may so call the part first attacked—and radiates from that place throughout the whole body. Whenever the diphtheritic infecting agent finds a foothold upon the body, it always excites a local affection in the place where it attaches itself. If this were so, then you would have all the local manifestations before those symptoms peculiar to constitutional diseases. Such is not the case, for there is unmistakable evidence of blood-poison long before there are any local pathological changes. Further, says Oertel, if it be true that diphtheria is a general infectious disease, which secondarily makes its first local appearance upon the mucous membrane of the throat and air passages, just as other infectious diseases produce their chief pathological changes always in certain organs, so when diphtheria is induced in an animal by the introduction of diphtheritic poison, must the disease of necessity always localize itself secondarily upon the mucous membranes of the throat, larynx and the air tubes. He here assumes erroneous premises and reasons therefrom. It doesn't follow that because diphtheria is the outgrowth of a certain poison operating in the blood, that there must be a local exudation in the throat, larynx or air passages at all.

Prof. L. McLane Tiffany, of the University of Maryland, reports the following case: Negro, age 7, lateral operation, with staff and knife, for stone in the bladder, Nov. 25, 1878. Wound dressed with carbolized oil, temperature Nov. 27th, 28th and Dec. 1st, 99°; on the 2nd, 103°; pulse, 160; on the 3rd a well-marked diphtheritic exudation made its appearance on the lip of the wound toward the anus, and ultimately covered the entire wound. On the 6th and 7th constitutional symptoms abated; no throat symptoms at all; wound healed slowly taking several weeks more than the usual time. I have it from excellent authority that there was at the same time, in the same building, a case of incised cervix uteri, from which was removed a diphtheritic membrane. In this case there were positive symptoms of blood poisoning. From whence did this poison come? And how did it reach these wounds? The history shows that there were other cases of diphtheria in the building, but not in the wards where these cases developed. I can come to but one conclusion, and that is, that the poison came from the other wards, through the medium of the atmosphere, and found its way into the patient's blood by inhalation and absorption by the mucous membranes of the air passages. Now, how far this poison may pervade the entire system it is difficult to say, but it does seem that one of its principal actions is upon the blood vessels, followed by liberation in the blood of fibrinous elements. The presence of this product of the poison in the blood, as foreign matter, explains the numerous extravasations of blood into the tissues of the body. For the product must be, more or less, at the expense of the coats of the vessels, with a consequent weakening and proportionate inability to retain their contents; and these extravasa-

tions also explain the more serious forms of paralysis resulting from pressure upon certain nervous centres. Again the fibrinous product explains the greater or less emboli and thrombi, which in turn may produce by pressure along the course of the nerves the lesser forms of paralysis, and by obstructing the kidneys and other organs lead to those pathological changes resulting from diphtheria. Who can doubt that there is a *vis eliminans naturæ* as well as a *vis medicatrix naturæ?* Now, as in the case of other poisons, the system tries to eliminate this and its product by an exudation at those points most favoring the same, either by virtue of their anatomico-physiological condition or an irritated and inflamed structure, arising from various causes; such as sudden changes of temperature or incidental lesions. That it may be invited to certain points by vesicants I have had abundant proof in my general practice, but more especially in the families of Messrs. William M. Busey, of Baltimore, and Oliver M. Warfield, of Hampden. In the family of the first-named gentleman I was called in consultation in the cases of two of his children, both of whom were suffering from diphtheria, and were in articulo mortis, and speedily escaped the further tortures of the M. D.'s. The next one attacked was Mrs. B., upon whose breast I ordered a large blister to be placed at the first appearance of the exudation upon the tonsils—this to be followed by poultices as hot as she could bear them. It was when the exudation came upon the vesicated surface that she began to experience relief from the throat symptoms. The next who came down with the disease were two more of the children, one of whom was, however, much worse than the other, her tonsils and fauces being well covered by the membranous formation. On the breasts of these children were also applied blisters, followed by poultices, with similar results as in the first case, except in one, who, I believed, judging from the appearance of the throat, was sufficiently well to justify me in healing the vesicated surface upon the breast, when there again developed constitutional symptoms with exudation upon the tonsils and fauces. Another blister was applied, when the exudation again manifested itself upon the blistered surface, with corresponding decrease in the throat. In the family of the second gentleman, Mr. W., there were five children who suffered with this disease, and upon whose breasts blisters were applied with the same favorable results as in the former cases. It is unnecessary to cite other cases where the exudation on abraded surfaces at some point remote from the throat afforded the greatest relief by diverting therefrom the exudation and inviting it to those parts where it may reside with less danger to the life of the patient. This should be borne in mind that the blister should be applied as early as possible, and followed by poultices as hot as the patient can bear them. In regard to the internal treatment I know of none better than that which you would employ in an ordinary case of intermittent fever. At the beginning large doses of mercury, followed by an aperient, and after this iron, quinine, etc.

Clinical Reports.

A CASE OF RAPID DISAPPEARANCE OF THE DIPHTHERITIC PELLICLE.

BY E. MEIERHOFF, M. D., BALTIMORE, MD.

The following case is related as the subject of this report: A boy, æt. 10 years, was gradually attacked with a painful condition of his throat, which occasioned considerable distress in deglutition and also interfered somewhat with speech. Two days after being first taken with the disease I saw him, which was at 9 P. M. Upon inspection of his throat the following was found to be his condition: The entire fauces, including the uvula, tonsils and part of the soft palate were covered with a greyish exudation, which was accompanied with a moderate amount of œdema of the bordering parts, the tongue being quite dry and coated quite heavily; there was more or less swelling of the cervical and submaxillary glands; some tumefaction of the connective tissue surrounding the glands; there did not appear to be so much fever and acceleration of the pulse, such as is found in acute inflammatory sore throat, showing the low grade of inflammation which ordinarily accompanies diphtheria. His urine was not examined; however, the presence or non-presence of albumen is not necessarily a positive or negative evidence of the disease. My object in giving the details is simply to prove that I had a case of diphtheria to deal with, and whether it was treatment or a natural coincidence which caused the exudation to disappear I will leave to those who may have had more experience than myself, to determine. As

I have stated above, I was called at 9 P. M. to see the case, and at that visit instituted the following energetic treatment, viz., locally the neck was to be bound in flannel compresses wrung out in ice water, to be repeated every half hour or less if necessary, the precaution being taken that the adjacent parts did not become wetted; internally ice was to be taken in the mouth as often as convenient (not less than intervals of fifteen minutes) and the following additional was used:

℞ Sodii Chlorat., ʒi
Quiniæ Sulph., gr. xx
Tr. Ferri Chlorid., ʒiss
Glycerinæ, ℥i
Syr. Aurant., q. s. ad ℥ii
M. S. ʒi every two hours.

This mixture makes a perfectly clear solution without the addition of water, no precipitate taking place; the soda salt being much more soluble than the chlorate of potash and being also taken with greater impunity; it does not appear to have the same action on the kidneys nor the depressing influence on the heart; both conditions, as is well known, are very objectionable in diphtheria. A gargle of chloral hydrat. ʒi, to water Oj, was used alternately every two hours with the above mixture in ʒi doses; one hour the gargle and then the next the mixture was used. When I returned to see my patient at 9.30 next morning, every particle of the exudation visible the night before had entirely disappeared so that my patient who had a bona-fide case of diphtheria was entirely restored to his previous health in two days afterward. I shall use the same treatment in any cases which I may see in the future and report the results whatever they may be.

427 W. Fayette St.

Clinical Lectures.

DIARRHŒA IN CHILDREN.

A Clinical Lecture delivered at the Jefferson Medical College Hospital.*

BY THEOPHILUS PARVIN, M. D.,

Professor of Obstetrics and Diseases of Women and Children in Jefferson Medical College.

Reported by WILLIAM H. MORRISON, M. D.

GENTLEMEN:—The two cases first presented this morning illustrate a common affection, one that you will be often called to treat, diarrhœa, in infants, and in children after the usual time of weaning. Here is an infant six months old, pale, its face showing that it suffers, and while the child is not positively emaciated it is far from being as plump and well nourished as it should be. It is now six months old; its mother died but a week or two after its birth, and since then it has been cared for by its grandmother, who brings it here. It has been brought up solely upon artificial food. Various kinds of food have been tried, and condensed milk finally adopted, as apparently the least injurious. Yet the condensed milk is far from being a good food in this case, since the child has at least twelve operations from the bowels every twenty-four hours, and moreover the operations cause a great deal of straining and pain; further, the grandmother tells us that after the straining a reddish lump appears; that is a prolapse of the rectum, or rather of its mucous membrane an affection which is not uncommon, while the former is exceedingly rare. The stools are not peculiarly offensive in odor, contain no blood, slime or mucus, and in color they are yellowish and green. Further, an examination of the buttocks and groins shows a violent erythema occupying these parts. The grandmother tells us that this has been present since the child was three weeks old, and every time the child urinates or has a stool, it cries with the suffering caused by the contact of these discharges with the raw, inflamed surfaces.

You at once see that neither as to frequency nor as to color are the discharges from the bowels normal; such discharges should not occur oftener than two or three times in the twenty-four hours, and they ought to be of a light yellow color. Let me urge upon you the importance, in treating these diarrhœal affections of children, of knowing not only the actual number of discharges in a day, but also of seeing for yourselves, observing their quantity, consistence and color.

Now, in the treatment of this patient, the first thing is a complete change of diet; let the condensed milk be abandoned, and let the child have instead cow's milk, diluted with one-third of an equal quantity of gum-arabic water, gelatine water, or albumen water; when the diarrhœa is better, barley water may be used for the diluent. As I have had occasion to say to you before, to dilute cow's milk with water is one of the worst of practices in infant feeding, for by such great reduction of the nutritive properties of the milk a double quantity of fluid must be taken, and thus indigestion from overloading the stomach or from too frequent feeding. Let me say still further as to artificial food for infants: It is impossible to say in a given case that one or that another kind of food will prove best; have as admirable theories as you please in the selection and combination of ingredients, the final test is in experiment, and the experiment some-

* Reported for the *Archives of Pediatrics*, April 15th, 1884.

times sets at naught the wisest, most scientific theories. Therefore, when you are directing the sort of diet an infant is to have, you are simply trying an experiment, and if the experiment is a failure don't persevere in it—do not try vainly to compel facts to correspond with your theories, but yield obedience to the facts, and try another experiment.

Now, as to the nature of the diarrhœa, it is simply an intestinal catarrh, not an inflammation, from which this child is suffering; its chief, if not the sole cause, is the food that is given—not that such food may not prove best in some other children, but that it does not agree with this child, and food appropriate to its wants will improve, if not cure, the diarrhœa. The stools when first passed, you remember, are partly green, and in the medicinal treatment of such case it is well to include antacids; if the stools become green after exposure to the air, no such indication in the treatment would be presented. I think it would be well, for the first few days, to give this infant an occasional dose of subnitrate of bismuth, prepared chalk and opium—about the thirtieth of a grain of the last, and two or three grains of each of the other ingredients. What shall be done for the erythema? Perfect cleanliness of the parts is of first importance, soiled napkins to be promptly removed, and none but perfectly clean ones applied in their place; then careful bathing and drying, after which thoroughly dust the surface with lycopodium; do not use starch for this purpose, as it is liable to form, with the moisture that exudes from raw surfaces, hardened masses and cakes, which are irritating, and are not easily removed; but if you choose you may mix the lycopodium with an equal quantity of oxide of zinc: sometimes by the way, an ointment of oxide of zinc proves better than any powder, applied to the surface. What is to be done for the rectal prolapse? With less frequent operations the liability to this accident is lessened; but when it occurs, let the tumor be bathed in cold water, and then have the child kept upon its back, if possible, for a short time, the thighs being kept close together. In case of paralysis of the anal sphincter, cold astringent injections will prove useful, and its persistence in spite of these may be met by injections of warm water containing one drop of tincture of nux vomica and five drops of the fluid extract of ergot, one or two each day. A recent and very good recommendation for the tenesmus that frequently is a prominent symptom in this rectal prolapse, made by Dr. Droixhe—*Journal d' Accouchements*, January, 1884—is the introduction of a suppository composed of iodoform.

The second child now presented to you is twenty-three months old, and since it was fifteen months old it has been taking, according to its mother's statement, "Table-food," and that means that it has been taking a great deal that it ought not to have had. You will so often, when asking after the diet of even a younger child, have the answer, "Pretty much everything that is going," that one wonders, not that so many infants die, but that so many live, when parents set them to digging their graves with their teeth, sometimes indeed with their gums. You may judge that there is not the most remarkable wisdom manifested in feeding this child, for it can neither be charmed into silence by your faces or by my speech, but it is by munching a piece of pie, an article of food which is often to be credited with causing indigestion in adult stomachs, and which few men and women can eat with freedom and impunity. For two months the child has had diarrhœa, the evacuations sometimes being as frequent as eighteen in twenty-four hours; these are of a brownish color, contain no hard lumps, nor mucus or blood, and there is no prolapse of the bowel resulting from them. Further, this child has had fever occurring every other night, and for this quinine has been successfully given. There is a history of tuberculous disease in some of the near relatives, though not in any of the immediate ancestors. One of these relatives was brought to the dispensary suffering, it was thought, with entero-mesenteric tuberculosis, and therefore there is more anxiety as to this child.

The child's complexion is not clear, but that may be attributed to the malarial poisoning; its countenance does not show the suffering which is often a marked characteristic of chronic tuberculous disease; nor are the discharges from the bowels such as occur in this disease; they are not yellow or grayish fluids mixed with lumpy masses and portions of undigested food. The conclusive evidence of tuberculous enteritis would be detected by the touch of the enlarged mesenteric glands; the point where you seek these is in the middle of the abdomen and below the umbilicus. Bouchut has called attention to the fact that fecal masses, scybala, may be mistaken for enlarged mesenteric glands, but the former are found at the sides, especially at the sigmoid flexure, while the latter have, as above stated, a median position.

In the treatment of this patient the first thing is to insist upon no more solid food, especially pie, being permitted. Let the child have a liquid diet, such as milk and the lighter animal broths, a daily bath and protection from cold by suitable clothing, and avoidance of exposure will be directed. The quinine will be continued, to guard against a return of the malarial attacks, and also as a useful tonic,

and for the diarrhœa the officinal chalk mixture in a dessertspoonful dose, a little tincture of krameria and the camphorated tincture of opium being added to each dose, will be directed.

Society Reports.

BALTIMORE MEDICAL ASSOCIATION.

STATED MEETING HELD APRIL 28TH, 1884.

(Specially reported for Md. Med. Journal.)

The Association was called to order at 8.40 P. M., the President, DR. E. G. WATERS, in the Chair, and Dr. Jos. T. Smith, Secretary, *pro tem.*

Dr. H. F. Hill proposed for membership Dr. A. G. Watts, 282 W. Lombard street, and Dr. J. Harvey Hill proposed Dr. B. S. Roseberry, 57 Bolton street.

Dr. Gibbons related the case of a woman who had hemorrhages from the lungs lasting eight days. After giving a number of remedies ineffectually he succeeded in checking it with turpentine.

Dr. H. F. Hill related a similar case.

Dr. J. A. Steuart related a case in which he had arrested the vomiting of pregnancy by means of ingluvin.

Dr. Friedenwald referred to a case of pulmonary hemorrhage which was arrested by dry cupping, done at Dr. N. R. Smith's suggestion.

Dr. Sellman related a case in which a patient with phthisis did not improve after becoming enceinte, and she died two weeks after childbirth.

Dr. J. Harvey Hill related a case of pulmonary œdema coming on suddenly, in which relief was immediate upon the application of dry cups.

Dr. Chambers discussed the value of pulmonary hemorrhage in connection with prognosis, and thought that those subject to it were likely to live longer than those not because there was less infiltration in the former case.

INDIGESTION IN YOUNG CHILDREN.—*Dr. J. Harvey Hill* opened the regular subject of discussion by reading a paper. He said this affection stands preeminent among the diseases of children. In all cases diet is of the first importance. He gives only milk during the first six months of life, unless the baby is sick; during the second six he adds only a little starchy food. Mothers commonly lose their milk in the second or third month of lactation. There are various causes of indigestion, as overfeeding, indifferent or too rich food, bad clothing, pregnancy, unsanitary surroundings, heredity, etc. He objected strongly to the abdominal bandage in new-born children, and thought that it had a causative relationship to the colic so common in the new-born. He thought the effects of teething were overrated; in such cases some derangement of the digestive organs will be found to account for the symptoms. Dr. Hill then referred to the consequences of indigestion, among which he enumerated marasmus or wasting, gastro-enteritis, vomiting, acidity, eruptions, etc. In the treatment the diet comes first in importance, and he who trusts to drugs alone will lose his patient. Among medicinal agents he enumerated pepsin, (Fairchild Bros. & Foster's pepsin scales, ¾ gr. doses), calomel as a laxative, hyoscyamus and bismuth as sedatives, alkalis and antiseptics.

Dr. H. F. Hill moved a vote of thanks to Dr. Hill for his admirable paper, which was adopted.

Dr. Smith had not had satisfactory results from pepsin, and thought it overrated.

Dr. Ellis also had gotten negative results, which he thought might be due, however, to some fault in the preparations employed. Had found the peptonic pills of Wyeth very efficacious in adults.

Dr. King agreed with the author of the paper as to the influence of teething being overrated.

Dr. Chambers could not see how pepsin could aid in the digestion of the milk, since it is digested after it has passed through the stomach.

Dr. Reinhart agreed with the author in regard to the injurious influence of the bandage; it is sometimes put on so tight that the child can hardly breathe. He disagreed, however, in his estimate of pepsin, finding lactopeptin especially serviceable. Of condensed milk he prefers the Eagle brand, and considered it much superior to cow's milk.

Dr. H. F. Hill thought the remarks concerning the one cow's milk good. This one cow is always a city cow, kept in a very filthy state. He preferred ordinary dairy milk.

Drs. Theobald and Coffroth being favorably reported upon by the Committee of Honor, were then duly elected to membership in the Society.

Drs. Seaton Norman, 154 Townsend street, and J. W. C. Cuddy, 137 N. Carrollton avenue, were nominated for membership by Dr. King.

REPORT OF PHILADELPHIA COUNTY MEDICAL SOCIETY.*

DISCUSSION ON INFLAMMATION OF THE EAR.

Dr. C. H. Burnett, in opening the discussion by request of the chair, said: It is very important to find out the real cause of the pain and inflammation in the ear. Very often the pain is due simply to a closure of the Eustachian tube and not to inflammation in the tympanic cavity, or it may be due to an inflammation in the membrana flaccida, or Shrapnell's membrane, in the upper part of the membrana tympani, the latter being unaffected. In the former instance the membrana tympani is drawn inward by the vacuum formed in the middle ear by the closure of the Eustachian tube, the ossicles are forced inward, pressure is exerted on the contents of the labyrinth, the filaments of the auditory nerve in the semi-circular canals are compressed, and reflex irritation of the cerebellum, with vertiginous symptoms, results.

Inflation will remove in many cases the pain in the ear and other symptoms, without the resort to leeches or paracentesis.

The surgeon should not be swift to incise the membrana tympani, especially simply to relieve pain in the ear. The membrane should be incised only when it bulges in consequence of fluid accumulations within the tympanic cavity. If an acute inflammation exists in the membrana flaccida, causing pain, this part of the membrana tympani may be incised with great advantage. Repeated incisions in the membrana tympani, especially in acute cases, for the relief of pain, are rarely if ever demanded. When suppuration and discharge have been fully established, cleansing by the use of absorbent cotton on the cotton-holder and the use of powdered boric acid, either pure or in combination with resorcin or chinoline salicylate, *i. e.*, the dry treatment, will be found more efficient than the use of the syringe or astringent drops.

Recurring again to acute cases of inflammation in the ear and earache in children, I would recommend a sudorific and anodyne treatment with the administration of aconite in proper doses, as preferable to depletion or scarification about the ear. The child should be of course carefully housed during the acute and painful stages of the disease. The surgeon should bear in mind that when called to see a child or anyone affected with an acute inflammation in the ear, that domestic remedies may have been used, and have aggravated and masked the disease. Very often the ear pain may be relieved by simply washing from the auditory canal various irritant salves, and a host of pungent domestic remedies, which would be enough to make a well ear ache.

Dry heat is the best remedy in the early stages of many cases of otitis, and its application will often bring about a resolution of acute congestion in children or adults. In fact, at the outset mild remedies or nothing should be applied to an ear acutely inflamed, whether the seat of the disease be in the external canal, the drum-membrane or the drum-cavity.

If a furuncle be diagnosed in the auditory canal, it should be incised at once. This usually obviates the necessity of all forms of poulticing, and prevents the tendency to the formation of other boils by cutting short the congestion in the skin of the canal.

Dr. Lawrence Turnbull: I cannot but express my pleasure at the way the subject has been brought before us, namely, the hygienic importance of the subject. Most of you are aware of the publication of my little work on this subject, and of the proposition which will be found in it worded as follows: "Of all the injurious influences combined, none, however, are so hurtful to the integrity of the human ear as cold."

All the main propositions which the gentleman has put forth in his essay I approve of, but I would make this reservation, that it is always a difficult matter to determine whether we have a true catarrhal inflammation of the middle ear to treat, or a purulent one, so frequently do the symptoms run together and become mixed. In the ordinary or simple form of catarrhal inflammation of the middle ear, you will have a rapid development of acute inflammation with pain, heat, swelling and redness, and in from twenty-four to forty-eight hours a sudden giving way of the drum-membrane, followed by a discharge of mucus not mixed with fully developed pus, and the child almost soon recovers from it.

In the second form you have an acute inflammation which involves the deep-seated tissues, blood-vessels, etc., and if not checked promptly will ultimately destroy the membrana tympani, and may involve the bone or brain itself, with profuse discharge, for days, weeks, or even months, of pus, blood, and broken-down tissue and bone. Now, I consider that the most important treatment is to relieve

*Dr. B. J. Rudderow's paper, which called forth this discussio ', was published in the *Maryland Medical Journal*, May 3d, 1884.

pain, and I find in little children with their distressing cries which appeal to everyone's heart, that nothing is so good in the early stage as to apply a bag of hot salt or sand, and covering it with a piece of flannel, place the patient's ear over it, or applying by binding it to the ear, as the little one is very restless and tosses about. If there is no hope of the resolution of the inflammation, then moist heat should be applied by means of a large hop poultice covered with oil silk, and renewed when it becomes cool. After using all the ordinary means to prevent and control inflammation, and none are of so much importance as those which afford relief to pain and quiet the excited nervous system, I administer to children the syrup of chloral with bromide of potassium, or in place of the chloral the camphorated tincture of opium; while in the adult I find nothing so prompt to relieve the agonizing pain as morphiæ sulphas and atropiæ sulphas, the first in doses of $\frac{1}{12}$ to $\frac{1}{8}$ of a grain, and the latter in $\frac{1}{150}$ of a grain to $\frac{1}{2067}$, combined with a minute portion of the sulphate of sodium in solution, and administered hypodermically. Some good authorities, like Politzer, prefer to give the morphia in $\frac{1}{13}$ of a grain at night and repeated; but in many instances we have found it rejected by the stomach. If we have not been successful in checking the disease, and we find that the inflammation is followed by perforation, we have then purulent otorrhœa, which, if not checked, may involve the posterior membrane, and at times the mastoid process and cells, and if there is great dizziness present the labyrinth is apt to be involved. A case of the first kind, abscess in the posterior fold or Shrapnell's membrane, of the drum-membrane, I opened an abscess this day from a neglected catarrhal inflammation with prompt relief to the tumulus. Again we have a subacute inflammation of the middle ear, but no perforation or severe inflammation of the posterior surface of the drum-membrane, an effusion of blood or serum takes place, which, owing to the transparency of the membrane, can be seen as a yellow reflex with a dark hair-like line. This dropsy is to be treated by the use of the inflator of Politzer, the nozzle being carefully introduced into the nose, a little water in the mouth, and with head carried forward and to one side, so as to facilitate the passage of the fluid contents into the pharynx; the patient swallows, and the air is propelled into the middle ear, and if successful the bubbles of fluid can be seen behind the surface of the drum-membrane.

Some physicians resort to paracentesis, even when the Eustachian tube can be opened by the air-bag. Now, I am one of those who consider this operation a very simple one, and any physician can perform it if there is a good, large, not swollen meatus, and a speculum, good light and forehead mirror; yet my experience is against its frequent performance in inflammation of the middle ear, as it often destroys the membrane entirely, or leaves a persistent and troublesome otorrhœa or chronic suppuration of the middle ear in scrofulous, tuberculous, or nervous patients.

I have also noticed bad results follow the use of local depletion in this same class of patient by leeches or cups.

But I approve of and perform paracentesis, and recommend it in healthy children and adults, when from the appearance of the membrana tympani there are sure indications the perforation is about to occur, when there is a yellowish green discoloration of the membrane with bulging forwards, with a livid red swelling and intense pain radiating all over the side of the head and face.

Dr. G. G. Davis: I am surprised that in this discussion the use of hot water has not been advocated more strongly. A quart of water allowed to run into the ear from a nasal douche will usually be sufficient. It is a plan recommended by Roosa in his treatise on diseases of the ear, and is one that I have tried with satisfaction. It is usually all that will be required for most of the milder cases and many of the severer ones. I think it should, usually, be tried before resorting to the severer precedures of leeching and puncture of the membrane.

Dr. Heyl: The reference which was made by Dr. Burnett, in the opening remarks, to a class of middle-ear affections which, though in many features suggesting acute catarrh of the tympanic cavity, are really pneumatic disturbances, is illustrated by a case which I have now under treatment. Some two weeks since I was sent for by a gentleman in the upper part of the city, with the request to bring instruments for cleansing his ear, as he was sensible of great pressure upon the drum-head which, perhaps, might be due to wax. He gave me the following history: Several days previous to my visit, he had noticed on retiring to bed a sticking sensation in the ear; during the night this increased to a violent pain. In the morning he began to hawk and spit mucus or muco-pus mixed with blood. After two or three days, on attempting to rise from bed and walk, he was obliged to vomit freely; this was apparently due to the effort of walking or maintaining the upright position. About this time I saw him. I found the pain much lessened, but a great sensation of pressure in the ear; hearing dull, noticeably so to the patient, who says that it has always been acute. Watch, $\frac{8}{36}$. Examination of the drum showed some injection along the malleus handle and

membrana flaccida. Membrana tympani lustreless. Relief experienced from cautious inflation with the Politzer method. Under appropriate treatment the patient is progressing toward recovery. Now, what was the diagnosis of this case? At first I was inclined to think it was a case of catarrhal tympanitis, and rather expected to see perforation take place with the formation of pus. But on observing the progress of the case, I came to the conclusion that the real difficulty was about the pharyngeal orifice of the tube, which so affected the muscular arrangements of the ossicles as to interfere with the normal pneumatic condition of the middle-ear, which I believe depends in a measure on the proper action of these muscles—at least those connected with the palate and Eustachian tube. I may simply refer to two other symptoms which this case presented.

1. A difficulty of maintaining equilibrium ; a sensation as if walking on a rocking boat, and the disposition to vomit which accompanied it. This, doubtless, was referable to the semicircular canals, but a curious feature was that it was very much aggravated by the vibrations of the tuning fork placed on the mastoid. This effect of the tuning fork probably often occurs in middle-ear troubles, although I do not remember to have seen it so marked as in this case. It suggests the thought of the susceptibility of the nervous connections of the semicircular canals to sound waves.

2. There were slight psychical symptoms in this case, such as great indisposition for work, or conversing with any one; a sense of uncertainty about the ability to perform work ; a sense of mental instability. Careful observation will probably show that a very close connection exists between abnormal mental symptoms and abnormal intra-aural conditions.

Dr. Risley: I feel indebted to the lecturer for calling forth a discussion on this very practical theme. Any scheme looking toward the hardening of oneself against cold-taking, should be very carefully scrutinized before its adoption. Regarding the operation for paracentesis of the drum-head, I think its importance has not been set forth with sufficient emphasis in the paper of the evening. I agree fully with Dr. Burnett in the views he has expressed regarding the rare necessity for its repetition.

In the treatment of acute catarrh of the middle ear, strict regard should be paid to the stage of the disease. At the beginning of the acute inflammation, the general treatment is of great value, and he regarded tinct. of aconite, syr. of ipecac. spts. ætheris nit., etc., quite as important here as though the inflammation had attacked the mucous membranes elsewhere, *e. g.*, the bronchi. The aconite is an especially valuable adjunct to the local treatment employed.

To guard the patient from all exposure is quite as important for the successful treatment of a severe acute catarrh, involving the Eustachian tube and tympanum, as in the treatment of a bronchitis or pneumonia ; confinement to bed between woolen blankets should in bad cases be rigidly insisted upon. The local treatment is of great value, but must be directed with due regard for the stage of inflammation and its severity.

In mild cases, freedom from exposure and an aconite mixture, with a little ipecac, will be quite sufficient, if the nasal passages and pharynx are kept free. If the attack is more severe, showing marked swelling of the mucous membrane of the pharynx and nose, and is attended with pain, the efforts for relief from the intense suffering are first in demand.

One of the simplest methods for relieving the pain—one always at hand, and in his experience one of the most effective—is the application of hot water applied to the external meatus. It must, however, be *hot.* It need not be applied forcibly or in large quantities. To pour the water in from an ordinary *pipette*, the head being held well over to the opposite side, is usually quite sufficient. The temperature of the water must be kept up by frequent repetition of the process, until the pain is relieved, which very soon results if the plan is to be successful. It, however, in some instances, seemed to aggravate the suffering of the patient. If relief does not follow the thorough application of the hot water, the leches are applied in front of the tragus, as recommended by Dr. Burnett. If the inflammatory process is not arrested, there soon follows, especially in badly nourished or feeble persons, a stopping of the middle ear with mucus and exudates, with great aggravation of the patient's suffering. It is at this stage of the disease that paracentesis is usually beneficial, and very frequently urgently demanded.

The appearances of the drum-head under these circumstances, the results of paracentesis and the usual features of this disease, I will illustrate in the case of a little girl 9 years old—at the present time under treatment, but convalescing from a violent attack of acute catarrh of the middle ear, Eustachian tube, pharynx and nasal passages. She was at the time under treatment for a subacute attack, which had caused tinnitus and some hardness of hearing. She had the day and evening before the attack gone through the excitement, fatigue, and possibly exposure, incident to a birthday party. In the night severe pain

came on in the right ear, and the nose was stopped by an acute coryza. Sweet oil and laudanum were poured into the meatus, but without relief. The following day was stormy, so that she was not brought for advice until the third day, and was then found still suffering so greatly that she was crying with pain. The meatus was very tender, so that traction upon the auricle aggravated the pain. The membrane of the tympanum was a brownish red or copper color, and the superior posterior quadrant was bulging outward and downward; at the centre of this almost bagging part of the membrane was a yellowish red point. I did not hesitate to perforate the drum-head at this point, and a moment later with the air-bag was able to force through the incision a few drops of a nearly chocolate-colored serum. The pain was relieved immediately. The meatus was greatly cleansed, a wick of borated cotton, saturated with a solution of atropiæ sulph., placed in contact with the drum-head, and allowed to remain, the pharynx and nasal passages washed with a weak solution of sulphate of zinc, and the child sent home, with instruction that she be placed in bed and the aconite mixture given if she should be feverish in the evening.

The following day she was seen at her home; there had been no return of the pain; in forty-eight hours the wound in the tympanum was closed, and at the end of a week she was quite recovered, even of the subacute catarrh, for which she had been under treatment before the violent onset of the acute inflammation.

A thorough and careful attention to the coryza, which very usually precedes these inflammations of the middle ear, would prevent their occurrence in most cases.

Dr. F. J. Buck: I have often relieved severe ear-ache almost instantly by placing some loose cotton in the bowl of a pipe; then moisten the cotton with sulphuric ether and blow the vapor into the ear through the pipe-stem.

Dr. William T. Taylor: To relieve the ear-ache of children, I have used chloroform in a similar manner to that described by Dr. Buck.

Dr. William S. Little: It would be difficult to lay down any rule that would apply to all cases in the process of hardening the system so as to prevent catching cold. The sensibility of the skin varies so in individual cases, the effect of heat and cold, the action of irritants upon the skin producing different results in individual cases; the Turkish and Russian bath not being allowable in many cases.

The hardening of the system by exposure has been advocated by non-medical men, who have been students of nature, but the *genus homo* does not thrive as other *genera* do in undergoing the process.

The treatment of ear affection following catching cold is often rendered more easy; in addition to the methods already discussed by the author of the paper, and gentlemen following in the discussion, by inhaling medicated vapors; compound tincture of benzoin in boiling water being a very agreeable and soothing medication.

The inhalation of burnt brown sugar is a very homely but a very valuable method, several cases of severe catarrhal conditions of the throat and ear being cured by persons who had resorted to various plans of medication prior to their working in the refining room of a sugar factory.

Osmic Acid in the Treatment of Peripheral Neuralgias.—Dr. A. Eulenberg (*"Berliner klinische Wochenschrift,"* 1884, No. 7; *"Centralblatt fur klinische Medicin,"* April 19, 1884.) gives his experience with the hypodermic use of osmic acid in the treatment of peripheral neuralgias, in which he used a one-per-cent solution. Twelve cases were treated, the dose being almost always 0.05 gramme. In no instance were any unfavorable effects produced. The duration of the treatment was from one to six weeks, and the number of injections in the individual cases varied from three to fourteen. The cases included trigeminal, occipital, brachial, intercostal, lumbo-sacral, sciatic, and multiple neuralgias, partly recent and partly of long standing. The injections were always given *in loco morbi*—i. e., as near as possible to the affected nerve. The results were not very inspiring—out of twelve cases, only three cures (without relapses within a period of from two to fourteen weeks); with four of greater or lesser improvement add five of total failure. The three cases of cure were rather recent and uncomplicated cases, apparently of neuritic or perineuritic origin. The quantity of osmic acid used in these three cases was between 0·025 and 0·4 gramme. The author thinks it certain that the drug is not wholly inoperative in peripheral neuralgias, but that it is in no sense a specific.—*New York Med. Jour.*

Editorial.

PASTEUR ON THE VIRUS OF RABIES.—Elsewhere we publish a literal translation of a paper on the virus of rabies which was recently communicated to the Paris Académie des Sciences by M. Pasteur and his fellow-workers. These experiments seem conclusive, and the important fact seems to have been established that rabies may become extinct as the result of vaccination. The practical application of this truth may not be considered of any real importance since rabies is, comparatively speaking, a rare affection and one not likely to invoke a universal vaccination among dogs to prevent insusceptibility to its influence. Indeed, the value of these researches does not depend upon any such view of their importance. It is only as an abstract scientific discovery that interest attaches to the investigations. We have another confirmation of the fact that certain of the infective poisons vary in respect to their virulence by subjecting them to methods of attenuation and that insusceptibility to a virus may be secured by another virus of less intensity. This theory of attenuation of a specific poison grains strength with every new discovery of its successful application, so that the results arrived at by Pasteur are of the greatest scientific interest. It is in this line of scientific research that the the world is gaining so rapidly in valuable knowledge.

EFFECTS OF PROLONGED ADMINISTRATION OF THE BROMIDES IN EPILEPSY.—To the knowledge already acquired in regard to injurious effects following a prolonged course of bromides, which involve mainly the general nutrition, the mental faculties and the sensory and motor functions and are embraced under the term bromism, Dr. A. Hughes Bennet contributes the result of an experience with 300 cases of the disease treated by himself with the bromides of potassium and ammonium (*Brit. Med. Journ.*, May 17, '84). The influence which these drugs exercise over the paroxysmal element of epilepsy has already been studied most elaborately by the author, who found that in 12.1 per cent. the attacks were completely arrested during the treatment, in 83.3 per cent. they were greatly diminished in number and severity, in 2.3 per cent. treatment had no effect, and in 2.3 the number of attacks was augmented. The question with the author in the present study is to determine the effect upon the disease itself and upon the constitution of the patient. The author is able to select from the 300 cases 141 which are unexceptionable for purposes of scientific deduction, that is to say these 141 were under continuous treatment and observation for periods of from one to six years. The usual and minimum dose given—increased if necessary—contained 15 gr. each of the bromides of ammonium and potassium.

Eliminating carefully, as far as possible, the sources of error due to the difficulty of distinguishing between the effects of the remedy and the symptoms associated with the disease the facts show that in the majority of cases the physical and mental powers are not injuriously affected. In a very small proportion of cases are they unfavorably modified as a direct consequence of the bromides, and even in these it is not certain that the whole result is due to the drugs, as it might have been due to the epileptic condition as well. The innocuity of the drug was particularly obvious in the four cases which had been under their continuous use for six years; these persons exhibited no impairment whatever either in mind or body. A still more remarkable instance was that of a man aged 30, epileptic from infancy, who for the last five years has taken *four-and-a-half drachms* daily, and yet has been more healthy and robust in mind and body than at any period of his life. Of the 141 cases but three are known to have died, and these of phthisis pulmonalis. An important fact developed by the author's statistics is that the deleterious effects of the drugs, as eruptions, physical and mental depression, etc., diminish the longer they are tarken and tend finally to disappear. It would also seem that the epileptic condition is more tolerant of the bromides than the healthy system. Finally the author thinks it consonant with reason and experience to believe in the ultimate curative power of these agents in a certain number of cases. The chief impediments to the establishment of this view are the length of time necessary to judge of lasting benefits and the fear of toxic effects. The author has aided in solving this question by showing that the latter is without just foundation.

A DIPLOMA SECURED BY A MANDAMUS.—An interesting legal question has recently been decided in New York which may have its influence upon the medical schools throughout the country. A female medical student in the Woman's Medical College of New York city came up for graduation at the recent examination, and was found deficient by the Professor of Obstetrics and the Board Examiner on Materia Medica and Therapeutics. Having failed in these branches she was not recommended for a diploma. It seems that the student in question had ranked very low during the course, but had passed an examination sufficiently creditable to pass all the examiners but the two named. Anticipating

that justice would not be done her, she had kept a copy of her examination paper before the Professor of Obstetrics. Copies of this were sent to well-known physicians, all of whom certified that the paper was a correct and a good one, showing perhaps unusual intelligence. Upon the authority of these physicians a mandamus was issued, and the Dean of the Faculty was ordered to decide in half an hour whether the College would grant a diploma or stand a suit. After taking legal advice the College found it had no case, and a diploma was conferred. It was shown that the judgment of the Professor, upon whose vote the student was rejected, had been influenced by personal and verbal examinations and not by the examination papers alone. The case developed the legal point that medical colleges are not arbitrary bodies, and therefore cannot refuse to grant a degree to a student without reasonable ground. In other words this case clearly teaches that a student has certain rights, which if technically insisted upon, would give him advantages which have not been considered by him in his struggle for a diploma. As a rule the rejected candidate is sufficiently well satisfied with the verdict of his examiners to acquiesce in the result, but it must happen that injustice is sometimes done to one who is fully entitled to the honor conferred on his classmates. It may be comforting to this class to know that they can have a legal redress, and can make the College show the ground upon which a diploma was refused. The student in question was the wife of a lawyer, and this may account for the fact that a legal question was raised.

Antiseptics in Obstetric Practice.—Whilst the authorities continue to disagree in respect to the value of different antiseptics in obstetric practice, there is a growing sentiment in Germany and in France in favor of the bichloride of mercury. In France this is the favorite antiseptic and it is almost exclusively employed in the solution of 1.1000 to 1.2000. M. Tarnier has expressed his confidence in this agent in the strength above given, and in an opening lecture to the class of the Faculty of Medicine of Paris, took occasion to refer to the admirable results obtained through the use of antiseptics at the *Maternite* of Paris, where the bichloride solution had almost exclusively been used. We have referred to the use of the sublimate solution by the German obstetricians (*Md. Med. Journal*, May 17, 1884, p. 57), and to the unfavorable results observed by Prof. Schroeder in Berlin, and Stadtfeldt in Copenhagen.

These results were attributed to the strength of the solution used, which was the same as that employed in France. The observations of Badlehner, that the sublimate solution of 1.4000 for vaginal injection still produces some irritability, and his suggestion that the use of solutions of 1.10.000 are sufficiently active, were commended as eminently proper in view of Schroeder's and Stadtfeldt's experience. We notice that M. Pinard, of France, has observed that the solution of 1.1000 to 1.2000 frequently gives rise to an erythema and he has substituted in his service the following which, while possessing valuable antiseptic properties is less irritating. ℞. Biniodide of mercury and iodide of potash of each ten grains, water ten litres and fuchsine sufficient to color.

Quite recently sulphate of copper has been brought prominently forward as an antiseptic by Dr. Charpentier, of France. He has used it in a solution of 1 to 100 with excellent success and claims that it is absolutely antiseptic as well as perfectly harmless.

Whilst the profession is reaching after various antiseptic agents, it is well to bear in mind that any agent which is sufficiently powerful to destroy micro-organisms may also be capable of doing more or less damage to the tissues. All antiseptics should therefore be used with caution and circumspection. It is also well enough to remember that cleanliness will frequently accomplish as much without as with antiseptic solutions.

The "Waring Patent."—The Drainage Construction Company, owning the "Waring Patent," having lately claimed the right to a royalty, and also the right to inspect and approve the plans and specifications in a case where a town in Michigan was about to introduce a separate system of sewerage, the *Sanitary Engineer*, which is the authority in such questions, gives its opinion as to the legality of the said claims.

The patent for the "Waring Sewerage System" was issued to George E. Waring, Jr., assignor to the Drainaige Construction Company, Boston, Mass., Jan. 18th, 1881.

According to the *Sanitary Engineer* the whole question hinges on the use of "automatic flush-tanks at the head of lateral sewers." Now it is on record that the use of these was described and suggested in English works on Engineering as early as 1877 and 1878, two or three years before Col. Waring applied for his patent. Hence it would be necessary for him "to furnish legal proof that he was really the first inventor of the feature of 'a flush tank at the head of lateral sewers.' If Col. W. could furnish such proof, the publication of these descriptions in Baldwin Latham's and J. Baily Denton's Books would not alone be sufficient to invalidate his American patent by such a claim. It would then further require evidence that the feature claimed had been in actual use in the

United States two years prior to the filing of his application for a patent." As for the remaining claims of the patent the authority quoted justly says that no engineer should hesitate to use them notwithstanding the royalty to be paid if they subserved his purpose better than any other methods.

The question is manifestly one of great and growing importance. The separate system is growing in popularity and the satisfactory accounts received from Memphis, with cheapness of construction and other advantages, are turning the attention of many towns and cities to its applicability to their wants. Now it is hardly likely that in all such cases there will be a willingness to submit the plans to Col. Waring for approval, besides paying for their use, and such requirements must lead to much litigation and delay. It is consoling, therefore, to receive the opinion from so high an authority as the *Sanitary Engineer* that "as the case stands to-day an efficient so-called separate system of sewarage can be adopted without necessarily any of the patent claims printed above."

Miscellany.

M. PASTEUR ON THE VIRUS OF RABIES.*—The following is a literal translation of the important paper on the virus of rabies communicated to the Paris Académie des Sciences, on Monday evening, by M. Pasteur, and his fellow workers MM. Chamberland and Roux:—

The important fact that certain infective poisons vary in respect to their virulence, and that insusceptibility to a virus may be secured by means of another virus of less intensity, is at the present moment not only an abstract scientific discovery, but has found an application in the domain of practice. Research being once turned in this direction, it is easy to understand how great an interest attaches to investigations into the methods of attenuation appropriate to new viruses. I have the honor, on the present occasion, to bring under the notice of the Academy an advance in this direction, in reference to rabies.

1. If the poison of rabies be transmitted from the dog to the monkey, and then from monkey to monkey, its virulence diminishes with each inoculation. If the virus, which has been thus enfeebled by inoculation from monkey to monkey, be then re-transmitted to a dog, a rabbit, or a guinea-pig, it still remains attenuated. In other words, the virulence never returns at once to the degree found in the mad dog of the streets.

*From the *London Medical Times*.

II. The virulence of the poison of rabies is increased when it is transmitted from rabbit to rabbit, or from guinea-pig to guinea-pig. When the virulence has thus increased and reached its maximum in the rabbit, the virus still retains this high degree of virulence when transmitted to the dog, and is evidently much more intensely virulent than the virus of the mad dog of the streets. Under these conditions, indeed, the poison is so virulent, that when inoculated into the circulation of a dog, fatal rabies is the invariable result.

III.—Although the virulence of the poison is intensified in its passage from rabbit to rabbit, and from guinea-pig to guinea-pig, it requires many successive inoculations before it recovers its maximum virulence, when it has been previously attenuated in the monkey. Further, the poison found in the mad dog of the streets, which, as I have just said, is far from being of maximum virulence, when it is inoculated in the rabbit, requires to be passed through many individual rabbits before it attains that maximum.

If we apply rationally the results I have just communicated, we can easily render dogs proof against rabies. The investigator may have at his disposal the virus of rabies in different degrees of attenuation; the non-fatal kinds preserving the economy from the effects of the more active and fatal kinds. Let us take an example. We take the virus of rabies from a rabbit which has died after inoculation by trephining at the end of a period of incubation, exceeding by several duys the shortest period of incubation commonly met with in the rabbit. This period invariably occurs between the seventh and eighth day after inoculation by trephining with poison of maximum virulence. The virus from a rabbit, with the longest incubation period, is inoculated, again by trephining, in a second rabbit; the poison from this rabbit in a third. Each time the poison, which is becoming less and less virulent, is communicated to a dog. The latter is at length found capable of resisting a poison of fatal virulence. It becomes, in fact, entirely proof against rabies, when the poison of the mad dog of the streets is introduced into its system, either by intra-venous inoculation or by trephining.

By inoculations with the blood of animals I have been able greatly to simplify the operation of vaccination, and to produce in the dog the most marked insusceptibility to this disease. I shall shortly communicate to the Academy the total result of what I have found in connection with this point.

It will be of considerable interest, both now and up to the distant epoch when rabies has become extinct as the result of vaccination, to be able to prevent the disease developing after

bites by rabid dogs. On this point the first experiments that I have made give me the greatest hopes of success. Thanks to the length of the period of incubation of rabies when communicated by the bite of a rabid animal, I have reason to believe that we can with certainty produce a condition of insusceptibility in those who are bitten before the fatal malady is due.

The first results are very favorable to this view, but it will be necessary to repeat the experiments to an infinite extent on all manner of animals, before we shall have the courage to try this mode of prophylaxis on the human subject.

The Academy will understand that, in spite of the confidence inspired by the numerous experiments I have made during the last four years, it is not without apprehension that I now publish facts which point to nothing less than a possible prophylaxis against rabies.

If I had had sufficient material at my disposal, I should have preferred to defer this communication until I had asked some of my colleagues at this Academy and at the Academy of Medicine to examine the conclusions I have just made known. In deference to these scruples and motives, I took the liberty of writing a few days ago to M. Fallières, Minister of Public Instruction, asking him to be good enough to appoint a Commission to whom I might submit the dogs which have been made proof against rabies. The crucial test which I would propose, would consist in the first place in taking from my kennels twenty dogs proof against rabies, and placing them side by side with twenty dogs intended to serve as my witnesses. We should then have these forty animals bitten successively by mad dogs. If the facts which I have enunciated are correct, the twenty dogs which I believe to be proof against the disease would all remain healthy, while the twenty witness dogs would become infected with rabies. In a second and not less conclusive experiment, we should take forty dogs—twenty vaccinated before the Commission, and twenty not vaccinated. The forty dogs would then be inoculated by trephining with the virus of the mad dog of the streets. The twenty vaccinated dogs would be proof against the infection, while the other twenty would all die of rabies, with symptoms either of paralysis or madness.

An Easy and Safe Method of Sounding for Impacted Gall-Stones.—A paper on this subject was recently communicated by Dr. George Harley, to the Royal Medical and Chirurgical Society. The method recommended in the paper for indubitably ascertaining the existence of impacted biliary calculi was illustrated by the narration of a case in which it was successfully performed in the following wise:—the patient, a lady aged 36, who had been (under the care of Dr. Diver) for many weeks suffering from the signs and symptoms of obstructed bile duct, was placed under an anæsthetic. Dr. George Harley inserted a six-inch long French exploring trocar midway between the umbilicus and margin of the liver an inch and a half to the right of the median line. Its point being pushed upwards and backwards in the direction of the common bile duct, no hard substance was met with; on the stilette being withdrawn ascitic fluid came away, and the cannula could be moved freely in all directions. The instrument was withdrawn and reinserted an inch higher up, and about two inches to the right of the umbilicus. On pushing it in the same direction as before, to the depth of six inches, its point struck into a hard substance, presumed to be a biliary calculus. It was endeavored to estimate the size of the stone by pressing the end of the cannula without the stilette firmly against the hard substance, and moving the point of the instrument all round it. The inference was that the stone was the size of a hazel-nut. The punctures were closed by means of sticking plaster, and the abdomen bandaged. The signs of obstruction now began rapidly to disappear, and it was supposed that the operation had caused the stone to change its position in the duct, and had thus enabled it to pass along into the duodenum. Convalescence at once set in, but was of short duration, for an attack of enteritis supervened, followed by peritonitis, and the patient succumbed twenty-seven days after the sounding, and twenty-four after the stone had evidently left the duct. At the autopsy the thirteen calculi shown to the Society were found still in the gall-bladder, the longest being an inch in length, the next the size of a hazel-nut, the remainder all much smaller. The facets on the opposite ends of the large calculus showed that another stone, the size of a hazel-nut, must have existed, but come away. The paper ended with the following conclusions:—(*a*) That the presence of an impacted gall-stone may be readily as well as safely ascertained in the way described. (*b*) That not only the position, but even the size and shape of an impacted biliary calculus may be instrumentally ascertained. (*c*) That a knowledge

of these facts may possibly induce surgeons to undertake the earlier artificial removal of dangerously impacted gall-stones than heretofore; an operation which the author of the paper thought ought to be, under ordinary circumstances, no more hazardous to the life of the patient than the operation of lithotomy. He believed that the fatality that had hitherto attended the operation had been almost entirely due to the fact of its having been delayed until the exhaustion of the patient precluded the possibility of recovery.

THE MICRO-ORGANISM OF OSTEOMYELITIS.—Dr. Rosenbach (*Centralbl. f. Chir.*) has just published an account of his researches into the micro-organisms of osteomyelitis. Assuming that the specific microbe was to be found in company with those causing putrefaction, and with a view to ascertain whether they could give rise to a local osteitis without the occurrence of previous local injury, he began by introducing the microbe of lactic acid fermentation into the auricular vein of a rabbit, and found that no result occurred unless there was previous local injury of the bone. But necrosis and acute osteomyelitis were at once produced if such local injury existed. However, as the same result was attained by the introduction of any other septic material, and moreover, the microbe of the osteomyelitic pus failed to produce lactic fermentation under suitable conditions, it was considered that there was no causal connection between the disease and this peculiar microbe. The author has obtained by cultivation of osteomyelitic micrococci on nutritive gelatine an orange-colored or reddish microbe, which finally caused liquefaction of the gelatine, but had no such effect upon sterilized fibrin and peptone cultivation fluid. This micrococcus was characterized by a staphyloid arrangement of the individual cells. Is this micrococcus a specific excitant of osteomyelitis? If so, then osteomyelitis will be produced without previous lesion of bone. In animals it does not excite osteomyelitis, but it does cause death with the usual septic lesions. Further, the orange-colored staphyloid micrococcus has been produced by culture from the following sources, viz., abscess of lymphatic gland following on eczema capitis, in thirty-five cases; from subcutaneous and deep abscesses, in seventeen cases (five cases of empyema, two cases of boils, five cases of pyemia, five cases of septicemia); and from fourteen cases of osteomyelitis. In another case it was combined with a micrococcus of similar arrangement, but lighter in color, which he called *Staphylococcus pyogenes albus*. Rosenbach has further shown that this micrococcus produces violent phlegmonous inflammation when introduced beneath the skin. In fifteen cases of fracture, osteomyelitis was produced in eleven cases by the subcutaneous injection of this micrococcus. The author is led to the conclusion that there is nothing specific in the characters of his orange micrococcus or *Staphylococcus pyogenes aureus*. Becker (*Deutsche Med. Wochenschrift*, 1883, No. 46) gives, as a further character of this orange-colored micrococcus, the presence of a peculiar odor, resembling that of spoilt dough, and produced by exposure to the air. He never saw osteomyelitis produced by this micrococcus without previous local injury of bone.—*Practitioner.*

PARALDEHYDE IN THE TREATMENT OF DELIRIUM TREMENS.—Gugl (*Zeitschrift fuer Therapie*," 1884, No. 4; "*Centralblatt fuer klinische Medicin*," 1884, No. 20,) speaks highly of the action of this drug in delirium tremens, on the strength of three cases treated with it. In every instance it proved a prompt hypnotic, and in no instance were unpleasant symptoms produced. The dose was usually given with twice or three times the same amount of tincture of orange-peel, with syrup of orange-peel, or in about one-eighth of a litre of sweetened water, the whole making a mixture against which the patient's befuddled sensorium did not rebel. The author considers paraldehyde absolutely free from danger, even in doses of six to eight grammes.—*New York Med. Journal.*

THE SPECIFIC TREATMENT OF DIPHTHERIA AND CROUP.—George A. Linn, M. D., of Monongahela, Pa., read a paper before the Section on Practice of Medicine at the recent meeting of the American Medical Association with the above title, the following abstract of which is presented:

The corrosive chloride of mercury is a specific in diphtheria, when given in large doses in the early stage of the disease. The mere giving of a remedy does not necessarily constitute its use as a specific. Minute doses of quinine given two or three times a day would not be a specific in malaria; so in treating diphtheria with bichloride of mercury, the dose, time of giving, and stage of the disease, are conditions necessary to success.

It should be given in large doses, $\frac{1}{20}$ to $\frac{1}{12}$ of a grain to a child two or three years of age, and $\frac{1}{12}$ to $\frac{1}{8}$ of a grain to an adult, every three hours. It is best given in solution. The druggist should make a solution in alcohol and dispense from this. The best vehicle is the

elixir of pepsin, or elixir of pepsin and bismuth in teaspoonful doses.

In mild cases, the remedy should be continued to the end of the third day, in malignant cases, two or three days longer. If the treatment is commenced in time, no tonic or sustaining measures are required. But if the case is well advanced, brandy and iron should be added. If the membrane invades the windpipe causing croup, there is danger of suffocation from obstruction of the air-passage. This is due more to spasmodic condition of the glottis than to presence of membrane, and may be relieved by giving chloride of gold, which is a specific in simple croup. It acts like a charm, is tasteless and causes no nausea. It should be given in solution in distilled water, the medicine being dropped into a glass and the use of a spoon avoided. The dose for a child two or three years old is from $\frac{1}{80}$ to $\frac{1}{30}$ of a grain every hour until relieved. In diphtheritic croup the bichloride of mercury is to be given in conjunction.

Treatment of Sciatica by the Strong Galvanic Current—In a paper on this subject (*N. Y. Med. Record*, June 7) the author, Dr. V. P. Gibney, sums up the following conclusions: 1. A differential diagnosis should be made between a sciatica depending on a rheumatic diathesis and one of purely idiopathic origin. The former will yield to faradism or static electricity, and will be aggravated by galvanism. The latter will be relieved by galvanism and aggravated by faradism. 2. Daily applications of from ten to fifteen minutes each, care being taken to include the nerve in the current. 3. The Leclanché elements give the best results. 4. If no marked relief be obtained after a half dozen applications the diagnosis had better be carefully reviewed.

Rupture of an Ovarian Cyst, the Contents Becoming Closed by Peritonitis.—At a meeting of the N. Y. Obstetrical Society, Dr. T. A. Emmet related the following case: In July last a woman with a supposed ovarian tumor was brought to his office from Memphis, having been taken from her bed during an attack of peritonitis, and arriving more dead than alive. She was placed under Dr. Harrison's care, and it was determined, if she recovered sufficiently from the peritonitis, to perform ovariotomy, which was accordingly done in the middle of July. Dr. Emmet found to his surprise, on cutting through the abdominal wall, that he had opened directly into a large space. The fluid, which was dark, not unlike ink in appearance, was emptied out apparently from the abdominal cavity and not from an ovarian sac. As soon as the cavity had been washed out, numerous long and large strips of membrane, apparently composed of the walls of the sac, were readily peeled off. On reaching the portion covering the stomach there appeared to be another cyst, but it proved to be the distended stomach. The case evidently was one of ovarian tumor which had ruptured, and the contents become encysted by the products of inflammation; the walls then rotted, or softened and could be peeled off in the manner mentioned. He had never seen a similar case. Dr. Harrison would give the result and the history of the after-treatment.

Tobacco as an Antizymotic.—There is a popular notion that the use of tobacco is in some degree a protective against the infectious diseases. In the "Montpellier Médical," quoted from the "Bulletin Général de Thérapeutique," Dr. Pecholier supports this belief, saying that he considers tobacco an energetic parasiticide capable of acting upon microzymes and microbia, and that, while he thinks its abuse liable to produce well-marked effects on man, he is nevertheless convinced that it is capable of rendering important service in protecting him against epidemic and contagious disease. He lays particular stress on the immunity against phthisis acquired by workers in tobacco.

The Prevention of Blindness in Infancy.—The following instructions based upon the directions of the Society for the Prevention of blindness, have been issued by a Committee of the Manchester and Salford Sanitary Association, for the information of mothers and nurses. Judging by our own experience, such instructions are greatly needed and the effort of the committee is worthy of all encouragement:—"One of the most frequent causes of blindless is the inflammation of the eyes of new-born babies. Yet this is a disease which can be entirely prevented by cleanliness and always cured if taken in time. The essential precautions against the disease are:

1. *Immediately after the birth of the baby, and before anything else is done*, wipe the eyelids and all parts surrounding the eyes with a soft, dry linen rag; soon afterwards wash these parts with tepid water before any other part is touched.

2. Avoid exposing the baby to cold air; do not take it into the open air, in cold weather; dress the infant warmly and cover its head, because cold is also one of the causes of this eye disease.

When the disease appears it is easily and at once recognized by the redness, swelling and heat of the eyelids, and by the discharge of yellowish white matter from the eye. *Immediately* on the appearance of these signs *seek the advice of a medical man;* but, in the meantime, proceed at once to keep the eye as clean

as possible by very frequently cleansing away the discharge. *It is the discharge which does the mischief.*

The cleansing of the eye is best done in this way:

1. Separate the eyelids with the finger and thumb, and wash out the matter by allowing a gentle stream of lukewarm water to run between them from a piece of rag or cotton-wool held two or three inches above the eyes.

2. Then move the eyelids up and down and from side to side in a gentle rubbing away, to bring out the matter from below them; then wipe it off or wash it off in the same manner. This cleansing will take three or four minutes, and it is to be repeated regularly *every half-hour* at first, and later if there be less discharge, every hour.

3. The saving of the sight depends entirely on the greatest care and attention to cleanliness. Small pieces of clean rag are better than a sponge, as each rag is to be used once only, and then burnt immediately; sponges should never be used except they are burnt after each washing.

4. A little *washed* lard should be smeared along the edges of the eyelids occasionally to prevent them from sticking.

Special Warning. Of all the mistaken practises which ignorance is apt to resort to, none is more ruinous than the use of poultices. Let them be dreaded and shunned as the destroyers of a new-born baby's sight. Tea-leaves and sugar of lead lotion are equally conducive to terrible mischief, stopping the way as they do to the only right and proper course to be taken.—(*London Practitioner.*)

BANQUET TO KOCH.—A grand banquet was given to Dr. Koch May 13th (*Brit. Med. Journal*, May 31st,) by the medical profession of Berlin. In reply to an address he expressed his regret that he had not succeeded in finding a remedy for cholera or means for stopping the development of the germs in the human body. He modestly waived all claim to special praise for exposing himself to danger. The discovery of the cholera bacillus had not influenced the etiology of cholera so that the Commission had tried to arrive at results of some practical use. The results attained would enable us to adopt proper measures should Europe again be threatened with the disease; indeed it might be possible to confine it to India, its home. He rejoiced that a German Commission had been able to arrive at these results, and referred to the problems connected with the poison of yellow fever, the investigation of malarial diseases, leprosy and rinderpest, hoping that discoveries in these fields might be reserved for Germans.

Medical Items.

The valerianate of cerium in 10 centigramme doses three times a day, is recommended in the vomiting of pregnancy. =The Pennsylvania State Medical Society has endorsed the passage of an act now before the Legislature regulating the practice of pharmacy, and adopting measures to prevent adulteration in drugs and medical preparations. A resolution was also adopted appointing a committee of seven to inquire as to the best method of making the diploma, which permits a man to enter upon the practice of medicine in the State of Pennsylvania a real guarantee of his proper qualification for the work.=A specimen of actinomycosis, the first ever exhibited in New England, was recently shown to the Suffolk District Medical Society by Dr. W. F. Whitney. It was from a heifer.=It is stated that Dr. J. S. Billings will deliver a course of lectures on hygiene and sanitary engineering next year at Columbia College.=Dr. Robert F. Weir has been appointed clinical professor of surgery in the College of Physicians and Surgeons, New York=In a bill recently introduced into the United States Senate $100,000 is offered as a reward to be given to any person who shall discover the true germ of yellow fever, or any certain way of preventing or modifying the spread of the disease.=The Committee on Public Health of the House of Representatives has reported adversely on the bill recommended by the National Board of Health for renewing the quarantine bill of 1879. It recommends that $200,000 be appropriated for preventing or checking epidemic disease. This sum will probably be expended through the Marine Hospital service.=The National Board of Health will receive $18,000 for scientific investigations, and $7,000 for salaries.=Prof. C. A. Wurtz, the celebrated French Chemist, died in Paris on May 12th at the age of 67 years=Prof. Burt G. Wilder, the Cartwright lecturer for 1884, has resigned his position as Professor of Physiology in the Medical School of Maine.= Dr. Koch, the President of the German Cholera Commission, is described as of "medium height, very thin, with a serious, energetic, *spirituelle* student's face. His beard is brown, but his hair is becoming gray, and this, together with his glasses, makes him seem to be older than forty or

forty-one."=The Woman's Medical College of the New York Infirmary graduated nine students at its commencement held May 29th.=About forty women have matriculated with the Faculté de Médecine of Paris.=The New York Academy of Medicine was founded 37 years ago. Of its original Fellows, numbering 118, one hundred are now dead.=The *Atlanta Medical and Surgical Journal* has donned a new dress and adorned its cover with a portrait of Dr. Crawford W. Long, the alleged discoverer of anæsthesia. The Journal is not only improved greatly in appearance, but presents an excellent table of contents, and manifests a spirit of enterprise and progress much to be commended.=Dr. Charles Smart Roy, Professor Superintendent of the Brown Institution, has been elected Professor of the new Chair of Pathology at the University of Cambridge, England. The salary is about $4,000 per annum and the incumbent is not allowed to practise.

CHANGES IN THE STATIONS AND DUTIES OF THE OFFICERS SERVING IN THE MEDICAL DEPARTMENT U. S. ARMY, from June 3d, 1884, to June 9th, 1884:

Lieut. Col. Page, on being relieved by Major Baily, will proceed to Fort Leavenworth, Kansas, and report to commanding general Department of the Mo., for assignment to duty as Medical Director of that department.

The Army Medical Examining Board, New York city, is dissolved, to take effect June 14th, 1884.

Brown, Jos. B., Lieut. Col. and Surgeon, upon completion of the business of the A. M. B., directed to comply with S. O. 44, current series N. Y. S. and return to New York city.

Clements, Bennett A., Major and Surgeon, directed to await orders in N. Y. city.

Kimball, James P., Capt. and Asst. Surgeon, granted leave of absence for two months and fourteen days, to take effect June 14th, 1884, and ordered to relieve on August 28th, 1884, Capt. Robt. H. White, Asst. Surg., from duty at U. S. Military Academy, West Point, N. Y.

Captain White, on being released, ordered to report in person to the Commanding-General Department of California, for assignment to duty.

Sternberg, Geo. M., Major and Surg., relieved from temporary duty in S. G. O., and ordered to assume the duties of attending surgeon and examiner of recruits at Baltimore, Md.

Finley, J. A., Capt. and Asst. Surg., relieved from duty at Fort Stockton, Texas, and assigned to duty as Post Surgeon, Fort Concho, Texas.

Moore, John, Lieut. Col. and Asst. Med'l Purveyor, ordered to perform in addition to his present duties those of Medical Storekeeper, San Francisco, Cal.

Johnson, Henry, Capt. and Medical Storekeeper, relieved from duty at the Medical Purveying Depot at San Francisco, Cal., and ordered to report for duty ut the Medical Purveying Depot, New York City, relieving Capt. Andrew V. Cherbonnier, Medical Storekeeper.

Capt. Cherbonnier, on being relieved by Capt. Johnson, will proceed to St. Louis, Mo., and report in person to Capt. Geo. T. Beall, Medical Storekeeper and Acting Assistant Medical Purveyor, for duty at the Purveying Department at St. Louis, relieving Capt. Beall of his duties as Medical Storekeeper.

Fryer, Blencowe E., Major and Surgeon, granted leave of absence for one year, from July 1st, 1884.

Hall, John D., Captain and Assistant Surgeon, granted leave of absence for three months, to take effect on his arrival at St. Paul, Minn.

Heger, Anthony, Major and Surgeon, assigned to duty at Fort McHenry, Md., as Post Surgeon.

Huntington, David L., Major and Surgeon, during the absence of the Surgeon-General, directed to take charge of the office of the Surgeon-General and perform his duties.

Bentley, Edwin, Major and Surgeon, assigned to duty at Fort Clark, Texas, as Post Surgeon.

Koerper, Egon A., Captain and Assistant Surgeon, assigned to duty at Fort Keogh, M. T.

Barnett, Richards, Captain and Assistant Surgeon, now on sick leave of absence, is relieved from duty at Columbus Barracks, Ohio, and ordered to report to Commanding General Department of the East for assignment to duty.

Cunningham, T. A., Captain and Assistant Surgeon, ordered to relieve Assistant Surgeon C. B. Byrne, U. S. A., from duty at Fort Lewis, Col. Assistant Surgeon Byrne, when so relieved, ordered to proceed to Fort Gibson, I. T., and report to the post commander for duty.

Banister, J. M., First Lieutenant and Assistant Surgeon, granted leave of absence for one month and seven days, to commence June 13th.

McCrury, George, First Lieutenant and Assistant Surgeon, granted leave of absence for two months with permission to apply to the Adjutant-General of the Army for two months' extension.

Wilson, Geo. F., First Lieutenant and Assistant Surgeon, relieved from temporary duty at Fort Canby, Wash. Terr., and ordered to return to his proper station (Fort Walla Walla, Wash. Terr.).

Owen, Wm. O., Jr., First Lieutenant and Assistant Surgeon, having reported at these headquarters will return to, and take station at, Fort Stevens, Oregon. In addition to his duties at Fort Stevens, Assistant Surgeon Owen will perform those of Medical Officer at Fort Canby, Wash. Terr.

CHANGES IN THE MEDICAL CORPS OF THE U. S. NAVY for the week ending June 7, 1884:

Passed Assistant Surgeon J. M. Murray detached from U. S. S. "Passaic," ordered to U. S. S. "Constellation."

Passed Assistant Surgeon W. Martin detached from U. S. S. "Constellation," ordered to U. S. S. "Passaic."

Passed Assistant Surgeon T. C. Craig detached from U. S. S. "Minnesota," ordered to U. S. S. "Vandalia."

Passed Assistant Surgeon C. W. Deane detached from U. S. S. "Vandalia," ordered to U. S. S. "Minnesota."

Passed Assistant Surgeon J. H. Hall detached from U. S. S. "Minnesota," ordered to Naval Hospital, Brooklyn.

Medical Director P. S. Wales to continue present duty until August 1, 1884.

Surgeon H. M. Wells to temporary duty at Naval Laboratory.

P. A. Surgeon E. H. Marsteller detached from U. S. S. "Vermont," ordered to U. S. S. "Monongahela."

Assistant Surgeon H. B. Scott; commission to date from July 11, 1883.

Assistant Surgeon V. C. B. Means; commission to date June 3, 1884.

Assistant Surgeon F. A. Hesler; commission to date June 3, 1884.

Original Papers.

A CASE OF GONORRHŒA WITH COMPLICATIONS AND SEQUELS.

BY J. EDWIN MICHAEL, A. M., M. D.,

Professor of Anatomy in the University of Maryland, Professor of Genito-Urinary and Rectal Surgery in the Baltimore Polyclinic, etc., etc.

Gonorrhœa is well known to produce certain complications and sequels which are extremely interesting from the pathological point of view, and are much more serious, as far as the patient's welfare is concerned, than the original complaint. It is rather rare, however, that a single case shows in such complete array the possibilities of the disease, as the one following, and on that account it is perhaps worthy of record:

F. B., aged 40, married, and the father of a number of children, applied to me on Nov. 15, 1882, with the following history: Several weeks ago, after an impure connection, he was attacked by a violent gonorrhœa, for relief from which he applied to Dr. O. S. Mahon, of this city (to whose courtesy I am indebted for the case), and was given a mixture of bals. copaibæ internally and ordered to use a mild injection of sulphate of zinc. After about two days of treatment a painful swelling developed on the left side of the penis about one inch from the glans. This swelling finally broke into the retro-glandular sulcus discharging matter, after which there was some relief from pain. Examination showed a fistulous opening in the sulcus, into which the probe passed, three-quarters of an inch. I could, however, find no connection between the fistula and the urethra. There was free discharge of pus, both from the meatus and fistula. The patient complained of much pain in the fistula at the time of urination, and was convinced that some water came through it. He was ordered a solution of sulphate of zinc gr. ii, ad f ʒ i, and directed to inject both the fistula and the urethra. Five days later (Nov. 20) there was no special change in the condition of the fistula or urethra. The patient was, however, suffering considerably from vesical irritability, for the relief of which suppositories of opium and belladonna were ordered. On Nov. 29th the condition of the patient was in all respects worse. There was considerable increase in the frequency of urination and the pain accompanying the act was so intense that spasm of the urethra prevented its completion. The pain was felt both in the end of the penis and at the neck of the bladder. I introduced a medium-sized (10 E) soft catheter and drew off a small quantity of urine which presented a normal appearance. The instrument passed without difficulty but gave great pain, at the end of the penis near the fistula and at the prostatic portion. Ordered acetate of potash ℈i and tinct. belladonna gtt. xx three times a day.

December 1.—All the symptoms were aggravated except the discharge which is somewhat less. The patient is in bed, feverish, depressed, the act of urination so painful and unsatisfactory that he is compelled to use the catheter for relief. There are on both legs a number of small painful swellings, some in the skin, showing dark red color; some under the skin where they could readily be felt but showing no color externally. Ordered opium and belladonna suppositories to be repeated and hot cloths about the lower belly and perineum as the nearest possible approach to a sitz bath.

December 12.—The painful swellings on the legs disappeared in about three days without treatment. In other respects there is no improvement, but the contrary. He has fever, dry brown tongue, no appetite and suffers much from tenesmus. ʒ ss each of potas. bromid. and chloral hydrat., taken at night to procure sleep produced decided mental perturbation, "set him crazy," in the words of his wife. I find also that he has abused the privilege I gave him, at his own request, of washing his bladder with a solution of boracic acid. I permitted it twice daily and he has washed it much more frequently. I therefore ordered it discontinued.

December 18.—The patient has left epididymitis. The other symptoms are unchanged. Ordered support to scrotum and ung. belladonnæ for epididymitis. Internally:

℞ Bals. Copaibæ, f ʒ i
Liq. Potass., f ʒ i
Mist. Glycyr. Comp.,
Mucilag. Gum Acac., aa ʒ ii.
M. Sig. Tablespoonful t. i. d.

A grain of quinine was also prescribed to be taken three times a day, the patient not being able to take a larger quantity. Copious injections of hot water into the rectum give much temporary relief to the bladder.

December 24.—Epididymitis much relieved. Dose of copaiba mixture reduced to f ʒ i; symptoms somewhat improved; tongue better; patient still much depressed. Another crop of small, painful swellings like those noted Dec. 1st.

December 31st.—A profuse diarrhœa during last night reduced the powers of the patient very much. It ceased spontaneously before my arrival. The patient attributed it to the copaiba, which was accordingly stopped. Ordered whiskey in milk to overcome the depression produced by the diarrhœa.

January 3, 1883.—Patient somewhat improved; appetite better; tongue clean. He still suffers from vesical irritability and has some urethral discharge. Ordered

℞ Bals. Copaibæ,
Spts. Aeth. Nit., aa f ʒ i
Liq. Potassæ, f ʒ ij
Fl. Ext. Glycyr., f ʒ ss
Ol. Gaultheriæ, gtt. xvj
Syr. Acac., ad f ʒ vj.
M. Sig. Tablespoonful t. i. d.

January 7.—Somewhat improved, but was compelled to stop copaiba mixture again on account of repugnance to it. Has not used the catheter for a week. Complains bitterly, however, of pain at neck of bladder at the end of urination. The urethral discharge is less in quantity, and the fistula is about healed up. Ordered ol. santali, gtt. x, to be taken on a lump of sugar.

January 11.—Has gradually improved under the ol. santali; appetite good; sleeps better and has less pain in urination. The discharge also continues to decrease.

January 15.—Generally improved. Takes the ol. santali in xv drop doses. Sits up a few hours each day, but still has some pain in the bladder.

January 25.—Had been up and dressed for several days. Can now retain his urine all night. Appetite very good. Is still pretty weak. From this time the patient continued to improve until in Dec., 1883, he reported himself well in all respects. Recently, however (May, 1884), he has had some obscure symptoms which examination shows to be due to contraction of the membranous portion. That portion will only admit No. 10 E, while the rest of the urethra will easily admit No. 18 E.

Remarks: In reviewing the history of the case we see a succession of evils not usually noted in one case. First we find periurethral abscess, a very rare condition, then prostatitis and epididymitis, and these followed after a considerable lapse of time by stricture. The association of epididymitis with prostatitis is not uncommon and the anatomical relations of the parts affected make the explanation easy. If epididymitis is, as seems to be the most generally accepted as well as the most rational view, an extension by continuity of the gonorrhœal inflammation by way of the vas deferens, it is but natural that the prostatic tissues should participate in the inflammation. The occurrence of the small painful swellings on Dec. 1st and Dec. 24th is unaccountable to me. They were, as mentioned, small, painful swellings, which existed in the skin as well as under it. Those on the surface were dark red, somewhat livid in color, firm and elastic to the touch and quite sensitive. They disappeared without treatment in about three days, leaving no trace. I could not associate their occurrence with any phase of gonorrhœa with which I am acquainted, nor attribute them to any of the medicine exhibited. I would also call attention to the advantage of the ol.santali. It was particularly useful in this case,since the copaiba had produced its characteristic nauseating effect. I have used it a great deal in gonorrhœa, especially when associated with vesical irritability and even in actual cystitis with very pleasant effect. Its administration is somewhat difficult, as it does not mix readily with the ordinary menstrua. In this case I gave it on sugar, a method which would not always be tolerated. It may be given in capsules also. After many failures I have devised the following mixture, which has often done me good service:

℞ Ol. Santali,
Liq. Potassæ,
Spts. Aeth. Nit.
Tr. Cinnamom., aa f ʒ ss,
Mucilag. Sem. Lini., f ʒ jv,
M. Sig. Desertspoonful t. i. d.

Hospital Reports.

SURGICAL CLINIC OF THE WOMAN'S MEDICAL COLLEGE OF BALTIMORE.

SERVICE OF RANDOLPH WINSLOW, M. D.,

Professor of Surgery.

"Diastasis of the Inferior Epiphysis of the Femur, causing Genu Varum."

Separation of the lower femoral epiphysis whilst not a very rare injury, is yet one of considerable interest; and in addition to the interest which pertains to this class of injuries in general, the following case presented peculiar features. The femur is developed from three primary centres of ossification, one each for the head, shaft and inferior extremity. Ossification begins in the lower epiphysis during the ninth month of fœtal life, but it is not completed until the 20th year, hence during all this time the liability of the epiphysis to be detached from the shaft must not be overlooked.

Case.—On Feb. 25th, Mrs. F. brought her son to the Hospital in order to obtain treatment for a deformity of the left leg. The history of the case is as follows: About, four weeks previously S. F., aged 11 years, was struck by a large sled, "doubledecker." According to his own account the sled did not

pass over the limb, but in some way mashed or jammed it. He suffered pain, and being unable to walk was taken home and put to bed, but received no medical attention. He remained in bed two weeks, and at the end of that time got up and began to use the limb. At first progression was painful and difficult, but the soreness gradually subsided, and at the expiration of four weeks from the time of the accident he walked nearly a mile to the clinic. An examination made at that time revealed the following conditions. The right leg was perfectly straight and normal, but there was a marked bowing of the left leg, so that the knees were separated two or three inches, and could not be made to touch each other. At the same time there was slight shortening of the left limb and some outward rotation of the foot.

The patient walked easily, scarcely limping and only experienced pain after long walking. There was no bruising of the integument of the knee, little or no tenderness upon pressure, and no effusion within the capsule of the joint. The knee appeared somewhat broader than normal, and unduly prominent. The condyles of the femur preserved a normal relation to the tibia, and flexion and extension are unimpaired. The patient could not stand alone upon the hurt leg. The patella was in its proper position and was freely movable. The leg presented a marked varum, the knees being two inches apart. Upon the outer condyle about one inch above the tibia was a slight angular projection, and upon the inner side, a corresponding depression existed, the rotundity of the vastus internus muscle being entirely destroyed. Immediately below this depression the projection of the inner condyle could be felt. The mother positively declared that no deformity existed previous to the accident.

Taking into consideration the youth of the patient, the direct injury to the knee, the peculiar deformity, and the fact that the motions of the joint were unimpeded, the diagnosis of separation of the epiphysis was arrived at, with a sliding of the epiphysis inwards, or a displacement of the shaft outwards, in which position union had taken place. The nature of the lesion was explained to the mother and her sanction to infraction or subcutaneous osteotomy was obtained.

On March 3rd the boy was anæsthetized by Dr. Graham, and with the assistance of Prof. Jay it was found possible by the exhibition of considerable force to completely break up the adhesions between the fragments, and to res tore the bones to their proper position. When this was done the knees could be easily brought together, and all deformity disappeared. The limb was now well padded and encased from the foot nearly to the pelvis in a nicely fitting plaster of paris splint. He was placed in bed and a sufficient amount of morphine administered to relieve pain. The next morning he was sitting up and clamoring to be taken home. Within a week he was seen standing upon the splint, though against orders, and without any discomfort. The apparatus was removed March 31st. The limb was found to be slightly shorter than normal, but the two knees could be easily placed together.

Clinical Lectures.

CORYZA VASO-MOTORIA PERIODICA

In a clinical lecture on hay fever recently delivered at the Baltimore Eye, Ear and Throat Charity Hospital, Dr. John N. Mackenzie proposes the above as a provisional substitute for the terms commonly employed as descriptive of the disease. According to him, the affection is essentially a coryza, showing, in most cases, a tendency to periodic recurrence, and dependent upon some disordered functional activity of the vaso-motor centres from inherited or acquired disease. After reviewing the more recent literature upon the subject, Dr. M. believes that his clinical expeience justifies the following conclusions:

1. That the essential feature of the paroxysm resides in erethism of the nasal erectile tissue, and especially that portion covering the posterior end of the inferior turbinated bone and the septum immediately opposite, an are a corresponding to the distribution of the sphenopalatine nerves, as distinguished from the nasal branch of the ophthalmic, which latter supplies the more anterior parts of the nasal fossæ. The former nerves, derived through the ganglion, probably, therefore, contain the vaso-motor filaments which govern the erection of the turbinated tissue, and hence the localization of the sensitive area becomes the key to the mechanism of the paroxysm.

2. This aggravated irritability of the cavernous tissue may be directly due to the constant presence of disease of that structure, the result of direct or indirect (reflex) irritation from *ab extra* influences, *plus* a hypersensitive condition of the vaso-motor nerve centres begotten of the constant nasal irritation; or it may be brought about in the first instance by an exalted state of the nervous system, leading to disordered functional activity of the centres; or, finally, a hypersensitive condition of the latter may be condititoned by other pathological states of the system as a whole or as the result of reflected irritation from its individual parts. It would appear from the above that

Dr. M. would transfer the point of greatest excitability from the peripheral ends of nerve filaments to the nerve centres themselves. Whilst he does not deny the possibility of a hyperæsthetic condition, or organic changes in the terminal filaments as an occasional factor the view advanced seems to be a more adequate explanation.

It explains, too, more satisfactorily the occurrence of paroxysms from reflected irritation from remote organs. It is moreover, probably not at the terminal ends of the filaments, but in the centres themselves, that the perception is awakened which differentiates one form of irritant from another; that the nerves are simply the passive channels of transmission, and that the production of a paroxysm will depend, other things being equal, upon the discriminating power or peculiar susceptibility of the centres.

3. There is, practically, an infinitude of causes, external and internal, which may precipitate the nasal orgasm, such as various forms of matter in the atmosphere (pollen, animal life, etc.); or the erection of the tissue may be conditioned by those influences commonly productive of erection of the nasal corpora cavernosa, such as varying meteorological conditions, etc.

4. The power of a given local irritant to produce such impressions, and the violence of the resulting attack, depend in all probability upon its physical properties and the length of its sojourn in the nasal chamber.

V. Whatever be the original cause of such special tendency to erection and evolution of reflex phenomena, the essential part of the mechanism of the paroxysm is orgasm of the erectile area. This is the mainspring of the machinery by which it is set in motion.

It follows that the rational treatment will consist (I) in diminishing reflex excitability (a) by nerve tonics (phosphorus, zinc, etc.), belladonna, strychnia, counter-irritation to nape of neck, etc.; (b) in the careful search for, and appropriate treatment of, any pathological conditions which may act as sources of reflected irritation, and (c) by the topical treatment of existing local nasal disease; (II) Failing in the above, the partial or complete destruction of the sensitve area. As little tissue should be sacrificed as posssible. It would be better to commence by removing or destroying that portion in the lower and posterior parts of the nostrils, or, in other words, *that area which contains the greatest number of filaments of the sphenopalatine nerves.* Should this not accomplish the desired result, any sensitive spots should be located with the probe as Roe has done, and appropriate treatment adopted.

Dr. Mackenzie suggested that the tendency to recurrence at a given hour and on a given day, apart from its accidental correspondence with the fruitage of certain plants, so far from overthrowing its neurotic nature, would point to some functional derangement as its possible cause; and instanced the the so-called functional aphonia as a prominent example of analogous affections of the nervous system.

Society Reports.

BALTIMORE MEDICAL ASSOCIATION

STATED MEETING HELD MAY 12TH, 1884.

(*Specially reported for the Maryland Medical Journal.*)

The Association was called to order at 8.45 P. M. by the President, Dr. E. G. Waters.

The *Committee of Honor* reported favorably on the four names nominated for membership at the last meeting; the ballot being then taken resulted in the election of Drs. B. S. Roseberry, A. G. Watts, Seaton Norman and J. W. C. Cuddy.

Abscess in the Thigh Following Pelvic Cellulitis.—*Dr. Erich* reported the following case: A patient had mammary abscess setting in four weeks after childbirth. A little later pelvic cellulitis appeared, resulting apparently from cold. A phlegmonous tumor formed in the left broad ligament causing fixation of the uterus. This tumor gradually underwent resolution, but the fever still kept up to 102°–103°; pain now set in in the left thigh and knee—the thigh was somewhat swollen and drawn. Dr. W. T. Howard was now called in consultation. Examination showed that there was no cellulitis, the uterus being freely movable but drawn over to the left side. The cause of the continuance of the fever was obscure. Finally a distinct swelling appeared in the front and upper part of the thigh at the junction with the pelvis. This swelling was perfectly resonant, showing that the thigh was filled with gas. The part was now aspirated and a quantity of offensive pus and gas removed. The abscess was freely opened next day. Notwithstanding, septicæmia set in and the case terminated fatally. No post-mortem was permitted. Dr. Erich had seen a pelvic abscess distinctly disappear and travel up the back forming there a peri-renal abscess. He had, however, never known one to go down into the thigh. He thought it especially strange that there should have been a formation of gas in it.

Specimen of Leg Amputated for Senile Gangrene.—*Dr. Chambers* exhibited a leg which he had amputated the previous day for dry gangrene. The patient was a colored woman, æt. 32, who, about Christmas, had a sore on the side of her ankle. Suddenly the limb became swollen and painful; this

was succeeded by loss of sensation and motion and dry gangrene. Upon examination of the part the posterior and anterior tibial arteries were both found to be occluded—probably from a thrombus. They were injected with wax about as far as the lower end of the popliteal space. The posterior tib. nerve was enlarged. The muscles look more like the flesh of fish than human muscles, and suggest the possibility of their having undergone amyloid degeneration. Dr. Chambers had also two months ago amputated both legs of an old man for senile gangrene. The line of demarkation had already appeared. The patient is doing well and has grown fat.

Dr. Rohe testified to the very bad sanitary surroundings of the last mentioned patient. The ligatures had been carbolized and instruments bathed in carbolic lotion, but the arteries were so brittle that the former were soon used up and Dr. Chambers had to use the ends which had been cut off and thrown upon the floor, where they had been trodden upon.

ETHERIZATION BY THE RECTUM.—*Dr. Ashby* described the recently introduced administration of ether by the rectum. A practical drawback in this method is the occurrence of diarrhœa in most of the cases from rectal irritation. In one case death occurred in a child and it was attributed to hemorrhage resulting from the ether.

Dr. Smith said that another disadvantage was that we could not gauge the amount used; on the other hand the irritation of the air passages and cough are averted.

The discussion of ether anæsthesia was continued by several members.

PELVIC ABSCESSES OPENING INTO RECTUM AND VAGINIA.—*Dr. Ashby* reported a case of pelvic cellulitis in a girl, æt. 22, following a criminal abortion at the third month. A metritis, then a parametritis ensued, and a pelvic abscess formed and discharged through the vagina. As the result of a cold another abscess formed on the other (right) side which opened into the rectum. Exploring the rectum with speculum, Dr. Ashby found the openening four inches above the anus. Through this he swabbed out the abscess cavity with cotton, as well as possible. There was a constant discharge giving rise to loose stools, requiring a constant washing out of the abscess, which was done first through a catheter then through a Davidson's syringe. A five-grain solution of nitrate of silver was employed. Four weeks have elapsed, and the discharge has ceased and the abscess is doing well, but there is advancing pulmonary trouble which will sooner or later terminate the patient's life. Dr. A. thought that it would have been proper to have opened the abscess in this case through the anterior abdominal wall at the point of fluctuation, could this have been detected, above Poupart's ligament.

Dr. Erich thought it fortunate for the patient that no such operation was performed, as such cases do better when left to nature.

PUERPERAL SEPTICÆMIA.—This subject was opened by *Dr. H. F. Hill* with a paper. He said that this term applied not only to the acute febrile affection unaccompanied by abscesses but also to a chronic pyæmia with abscesses. He then related a case illustrative of the affection as he had seen it. In this case the disease was ushered in thirty-six hours after a normal delivery by a chill, which was repeated many times; other symptoms were thirst, high fever, headache, cessation of lochia, vomiting, haggard aspect, cough, delirium, diarrhœa, respiratory difficulty; the pulse rose to 140, and temp. to 105°. The treatment consisted especially of quinine and carbolized injections. He thought this case due to entrance of microscopic organisms through rents in the uterine tissue especially at the site of the placenta. He suggested as a prophylactic against this occurrence the use of ergot, 20 drops of fl. ext., every four hours for one week after labor, the object being to close the mouths of the vessels and prevent absorption. Antiseptic injections, quinine and stimulants (carb. ammoniæ, and whiskey), disinfectants and poultices, constitute the other remedies. He was afraid to give quinine in the large doses recommended, as he thought it would occasion more prostration than the fever which it was intended to relieve. A number of cases treated upon these principles by Dr. Hill have gotten well.

Dr. Erich considered the above case not one but saprœmiæ of septicæmiæ (Barnes). The former is due to a germ which enters the system, and is capable of extensive reproduction; hence quantity has nothing to do with the effect. Treatment will not cure this affection. In the latter form the cause resembles more chemical substances in that a certain quantity must be introduced in order to kill the patient. True septicæmia is very rare, whereas poisoning by septic fluids is very common. Whenever high temperature appears after labor he gives full doses of ergot; this empties the uterus and re-establishes the lochia and the temperature falls simultaneously. Give quinine in full doses (gr. x–xx twice a day); small doses have no effect upon the temperature.

Dr. Jones agreed with Dr. Erich as to the case reported not being true septicæmia. The valveless veins of the uterus favor the occurrence of this disease; the remedy is to excite free contractions of the uterus.

Dr. Rohe doubted whether absorption takes place through the veins; if at all it must be by

means of the lymphatics. The mouths of the veins are filled with clots; if they were open there would be hemorrhage.

Dr. King referred to the fact of the disease being confined to seduced women as indicating the influence of mental trouble.

Dr. Ashby referred to the frequency of the disease in Vienna in the wards most frequented by students who were dissecting. Any decomposing matter in the uterus may cause it; Thomas reports a case in which the symptoms ceased on the removal of a mere shred of tissue from the uterine cavity.

Dr. Reynolds thought the case of Dr. Hill a true septicæmia. He referred to the difficulty of diagnosing the true from the false, of which the symptoms were identical. Dr. Hill had omitted iron, which he had found useful.

Dr. Erich is satisfied there are two forms, but the treatment is the same in both. The difference between them seems to him to be something like that between Asiatic cholera and cholera morbus. True septicæmia is a typhoid condition from the beginning. Speaking of Dr. King's suggestion, he said that the uterus does not contract well in those suffering from mental anxiety.

Dr. Chambers saw no reason for the term puerperal. The condition is the same whether occurring in a man who has a wound (surgical fever) or in a woman who has given birth to a child. He also thought there was no more danger of infection from a surgeon, operating generally, than from a physician attending constantly cases of midwifery.

Dr. Hill said that at one time he had four cases simultaneously, and he believed that he had carried the infection from one of these to the other three.

The discussion was then closed.

REPORT OF THE PHILADELPHIA COUNTY MEDICAL SOCIETY.

SUPPLEMENTARY REPORT OF REMARKS IN DISCUSSION OF DR. FORMAD'S PAPER.

Dr. Shakespeare regretted his inability to be present to open the discussion in accordance with the request of the President, and thanked the Society for this opportunity of expressing his views. He had been much interested by the opinions and by the review of the status of the tuberculosis question presented by the author. There were, however, very many points assumed as demonstrated, and positive statements advanced in the elaboration of Dr. Formad's paper, which Dr. Shakespeare believed to be without sufficient foundation. But he would not, at this time, enter into a general criticism. He preferred to await the detailed observations which the author promised shall be forthcoming in support of the many statements and conclusions he has thought proper to announce in advance. He intended to limit his remarks to-night to some differences between himself and the author as to statements made by the latter concerning a recent visit to Koch's laboratory. Dr. Shakespeare also had been in Berlin last summer, and had then enjoyed the privilege for about a month of working under Koch and his assistants during six or seven hours daily.

1. The author has declared, in terms far less equivocal than those printed, that Koch's policy is to hinder or prevent strangers who visit the Gesundheitsamt from retracing his now famous experiments upon tuberculosis, and stated that no one had ever been permitted to inquire into the infectiveness or parasitic nature of tuberculosis, save one man.

2. The author had further announced that Koch had so far modified his views that he now admits that neither the form, size and aspect of the tubercle bacillus, nor its want of individual motion, nor its peculiar behavior towards staining fluids, distinguish it from many other bacilli.

Dr. Shakespeare regarded these statements as misrepresentations of Koch's animus, as well as of his present opinions. He felt impelled to thus publicly express himself, because perhaps every member present had known of his late visit to the Kaiserliche Gesundheitsamt. To be silent under these circumstances would constitute a tacit assent to these declarations—a false position in which he was unwilling to be placed. Moreover, the grave importance of this whole question; the presumed desire of this learned Society to be possessed of all the evidence bearing upon every phase of it; and justice to the fairness, honesty and consistency of the distinguished author of the bacillus theory of tuberculosis, whether it be true or false, forced him to express now his dissent from the foregoing declarations of his friend.

Previous to the announcement of the discovery of the "tubercle bacillus," he had been most favorably impressed by the exactness and completeness of Koch's labors in the final establishment of the parasitic nature of anthrax (French, charbon; German, milzbrand; English, splenic fever), as also by the evident caution and reliability of that investigator. This had prepared him to begin the examination of the grounds of Koch's startling claims regarding the nature of tuberculosis with no small degree of respect for their author. At that time he had no definite views concerning the cause, infectiousness, or contagiousness of tuberculosis. Certainly he did not commence this examination with a mind wholly preoccupied by a theory of his own which he thought to be in conflict with that of Koch.

He had not gone to Berlin for the purpose of discovering there the truth or falsity of the claims for the "tubercle bacillus." On the contrary, recognizing the growing importance of research among the various forms of bacteria as possible causes or modifiers of pathological processes, and having personally experienced much trouble in prosecuting such studies whilst following described methods, and, through his intimate relations with the University of Pennsylvania, having known of similar difficulties in the Pathological Laboratory of that school of medicine, he had at length determined to obtain, if possible, ocular demonstration of Koch's classic methods of isolation, culture and study of minute organisms, and had become one of "the pilgrims" to that Mecca toward which Dr. Formad himself had directed his steps only a few weeks before.

Arrived in Berlin he had been most cordially welcomed at the Gesundheitsamt by Dr. Koch and his corps of accomplished colaborers, and every possible facility for furthering the object of his visit was most willingly and courteously tendered during the whole of his stay, though doubtless at the cost of much inconvenience, for, beside work upon important investigations, active preparations for the departure of the cholera expedition to Egypt were then in progress. He could say that he had never spent a month with more pleasure or profit. While it had not been his desire to give especial attention to the "bacillus tuberculosis," more than to the bacillus anthracis and to other bacteria, yet as far as wish extended, and the limited time at his disposal served, in his practical work the "bacillus tuberculosis" was not neglected.

He felt impelled to say, in the most emphatic and unmistakable language which he could use, that he himself was not only readily permitted to go as far as he wished in the investigation of the tubercle bacillus, but furthermore, on no single occasion did he meet with any hindrance whatever, or perceive the slightest indication of a desire on the part of Koch to prevent the retracing of his experiments upon that subject. He had heard of no one having met such a difficulty there other than Dr. Formad. The only person who, previous to the presentation of the paper under discussion, had to his knowledge published an account of personal work done upon tuberculosis in Koch's laboratory was Watson Cheyne, England, whose report amply testifies to Koch's willingness to have his experiments examined. Dr. Formad, in his communication as printed, excepted this work of Watson Cheyne, perhaps wisely, for he several times quoted for other purposes this same report.

If Dr. Formad, during the three or four days of his attendance at Koch's laboratory, did not experience an enthusiastic reception and as he intimated, was not permitted to experiment upon the pathogenic qualities of the tubercle bacillus, he might far more reasonably have attributed this coldness to an irritation naturally produced by his published remarks in which Koch had been accused of unscientific work, and the insinuation been offered that the researches made at the Imperial Health Office had been unduly influenced by Kaiser Wilhelm, than to have assumed from his reception that Koch habitually objected to have any one look into the genuineness and reliability of his work upon tuberculosis. Indeed, the simple fact of his admission at all under the circumstances, could fairly have been regarded as evidence of Koch's willingness to open his laboratory even to an opponent whom he regarded as unfair. The Gesundheitsamt is a department of the German Government. Koch and his chief assistants are officers of the German Army or Navy. They are all intensely loyal to their Emperor. They believed that Dr. Formad had purposely and unjustly stepped outside the proper sphere of a purely scientific communication to publish a reflection insulting to them and their Kaiser.

Before dismissing this indirect attack upon the reliability of Koch's published observations upon tuberculosis, Dr. Shakespeare took this opportunity to say that his personal observation of Koch, as well as a careful examination of his publications, had led him to the conviction that the whole medical fraternity does not possess a more painstaking capable, cautious, thoroughly honest and reliable investigator of the causes of disease than the distinguished discoverer of the tubercle bacillus. He would speak in similar terms of those of the corps of official co-laborers at the Gesundheitsamt, with whom he had come in contact sufficiently often to form an opinion.

The second statement above mentioned, namely, that Koch has now essentially modified his views concerning the characteristics of the tubercle bacillus, was next examined. Dr. Shakespeare could only say that Dr. Formad's extraordinary announcement was the first and the only information upon this point which he had received. Certainly he had heard nothing and seen nothing whilst at the Gesundheitsamt, which could in any manner confirm such a statement. It is true that, while at Berlin, the author had related to him his interview with Koch, and had said that the latter had been far less dogmatic than he had expected, mentioning among other things a little friendly controversy concerning their opposite views in which Koch had seemed quite willing to admit the *possibility* that under favorable circumstances, the tubercle bacillus might develop a flagellum at its extremity and thus become endowed with individual motion (Dr. Formad

had claimed to have seen this motion), and had appeared quite willing to admit also the *possibility* that in the course of time it might be discovered that other bacteria would react toward staining fluids in a manner identical to the reaction of the tubercle bacillus. But an admission that certain things *may be possible* and, a statement based upon present knowledge and experience, that they do exist, or are even probable, are quite different matters. During Dr. Shakespeare's work upon the tubercle bacillus in Koch's laboratory, which was after the termination of the short visit of Dr. Formad, he was taught to differentiate the tubercle bacillus from all other bacilli by means of its characteristic reaction, now well known, toward certain staining agents, no less than by its peculiar size and shape, as seen under high magnifying powers (Zeiss' $\frac{1}{12}$ was generally used for this purpose). The statement that the author of the bacillus theory of tuberculosis has partially withdrawn his claim that there is something characteristic in the staining of the tubercle bacillus and in its morphology which distinguishes it from other bacilli is the more astonishing and incredible because of the fact that, besides the existence of overwhelming testimony from all quarters of the globe in confirmation of this original claim, even Dr. Formad, however persistently in print he may assail this claim of peculiarity, is himself in the habit of differentiating this minute organism from all other known bacilli for purposes of diagnosis and of demonstration to his pupils *by means of this self-same characteristic coloring and morphology*.

Although it had not originally been his intention to discuss them this evening, Dr. Shakespeare briefly considered Dr. Formad's claims of discovery of the etiology of tuberculosis as set forth in his two papers. This author had been among the first to controvert Koch's theory of tuberculosis. Somewhat more than a year ago he made the first announcement of his views. In this communication the author advanced a theory of his own, which he believed to be opposed to that of Koch. He claimed that there is no necessity for the action of a specific agent in the production of tuberculosis, and that therefore such a specific agent can have no rational existence. This claim was, in the main, based upon his belief in the discovery of an anatomical peculiarity of those animals known to be especially prone to tuberculosis. This peculiarity he thought to consist essentially in a narrowing of the connective tissue lymph-spaces in certain animals—the scrofulous—and to be either hereditary or acquired. He claimed that the inflammatory process in such animals, whatever be the exciting cause, is necessarily tuberculous.

On the occasion of the presentation of his first paper, Dr. Formad undertook to demonstrate this reputed anatomical peculiarity by the exhibition, under the microscope, of a number of anatomical preparations. At that time Dr. Shakespeare had regarded that demonstration as far from satisfactory or conclusive. In the first place, no single section showed lymph-spaces. In the second place, the method of preparation followed (that for ordinary histological examination—hardening in alcohol, cutting thin sections, staining these with carmine, mounting them for examination in Canada balsam) naturally was not capable of demonstrating lymph-spaces; not one silver or gold preparation was exhibited. Indeed, this common and satisfactory method of studying lymph-spaces had apparently not even been resorted to, for it is to be presumed that the most positive and demonstrative specimens in the possession of the author were those selected for exhibition. It is true that some of the sections under the microscope showed a cellular hyperplasia of the connective tissue—an appearance by no means new to the scientific world. And this was the sole evidence presented in support of a reputed discovery concerning an important anatomical peculiarity of the lymph-spaces of so-called scrofulous animals, upon which an exclusive theory of the etiology of tuberculosis has been erected by the author and claimed to be demonstrated.

Recognizing the importance of that reputed discovery, this learned Society had at once appointed a committee, consisting of its most experienced microscopists, to examine anatomical preparations which Dr. Formad should lay before it in proof of his announced discovery. Nearly eighteen months have since elapsed, and yet, during all that time, not one preparation has been submitted for examination by that committee.

In the paper at present under discussion, the author complaisantly refers, for proof of his so-called discovery, to the evidence brought forward in his first paper, and supplements this by promising with apparent self-satisfaction the future publication of corroborative observations by some independent investigators. Other criticisms might justly be urged, but in view of the foregoing facts alone Dr. Shakespeare believed himself sufficiently warranted in contending that the basis of Dr. Formad's opinion concerning the etiology of tuberculosis has not been established, and also in suggesting that instead of that opinion being referred to as a "theory" against the theory of Koch, it was scarcely yet entitled to be dignified by the name "hypothesis." Furthermore, even admitting that this hypothesis concerning the anatomy of the lymph-spaces of the so-called scrofulous animals

were, by the most indisputable evidence, demonstrated beyond the possibility of doubt, it still contains nothing which by itself either necessarily supports the conclusion of Dr. Formad regarding the non-specificity and non-infectiousness of tuberculosis, or antagonizes the claim of Koch for the specific pathogenic qualities of his tubercle bacillus. When, if ever, this hypothesis shall become a fixed and determined fact, we shall then be placed only one step nearer a correct understanding of the etiology of tuberculosis. The reason of that peculiar *predisposition* which certain animals are known to show towards tuberculosis may then have been satisfactorily explained. But what the *exciting cause* of that peculiar malady may be, is an entirely different question. Whatever this may be, it can be readily understood that its power of destruction would naturally be favored by such an anatomical peculiarity. Such an "anatomical peculiarity," if it really exist at all can be easily turned to the support of the bacillus theory. The claim of Koch is not that the tubercle bacillus is endowed with pathogenic qualities which under any and all circumstances are capable of exciting tuberculosis. He himself declares that for the calling forth of these powers a suitable soil and conditions favorable to growth and propagation are essential.

Finally, Dr. Shakespeare thought it proper to define his own position with regard to the etiology of tuberculosis. He wished it to be distinctly understood that it was not from the standpoint of a follower of Koch, who accepted all of that investigator's conclusions, that he had offered the criticisms which he had made. In consideration of such a grave question as the one then confronting him, he regarded it as obligatory to exact the same degree of rigid proof from friend as from foe, whether advanced on the side of popular opinion or against it. He therefore had not hesitated to express objections to the opinions and statements advanced by his friend.

Dr. Shakespeare admitted, as absolutely established, the power of the tubercle bacillus, under favorable conditions, to produce a genuine and virulent form of tuberculosis. He did not admit that it has been positively demonstrated that no other agent may also be capable of producing the disease; on the other hand, he denied that it has been satisfactorily proved that any other agent is capable of exciting tuberculosis. He believed the proof strong that under certain favorable conditions, tuberculosis is an infectious disease, and that, at least frequently, the infecting agent is the tubercle bacillus. He saw no valid reason to deny that, under certain favorable conditions, tuberculosis may be conveyed from person to person, and in this sense be termed a contagious disease. Whether or not the tubercle bacillus be regarded as the only agent capable of exciting tuberculosis, its virulence is certainly incomparably greater than that of any other known agent. He therefore failed to appreciate the wisdom or the logic of those who, admitting the virulent qualities and propagative power of the tubercle bacillus, yet, because of a lingering suspicion or even of a decided belief that other agents could produce this terrible disease, would still decline to guard against possible infection or contagion. He regarded the tubercle bacillus, when present, as an infallible sign of the presence and activity of the tuberculous process. On the other hand, its absence, unless after repeated and long-continued searches by competent observers, does not positively warrant a negative conclusion. He therefore saw in the tubercle bacillus an important means of differential diagnosis in obscure cases. From its reported presence in some cases earlier than the physical signs could possibly determine a diagnosis of phthisis, he was inclined to think that it may become of inestimable value to the skilful practitioner to forewarn him of the beginning of that formidable malady which, if curable at all, must be combatted from the very onset.

Dr. Woodbury said that at least two distinct questions had been submitted for discussion: Is consumption contagious, and is the bacillus tuberculosis the efficient and only cause of consumption? One of these is not necessarily the complement of the other. Consumption may be contagious without being caused by a bacillus, and bacilli might cause consumption without rendering it contagious. The first question he thought should be decided by clinical experience, the second by clinical experience with the aid of morbid anatomy and mycology. Time would permit only a very brief presentation of the arguments in favor of the views which he held, and he therefore would at once state his conviction, and he believed the experience of others would agree with his own, that pulmonary consumption as ordinarily met with is not a contagious disease. Since the definition of a disorder must be made from the clinical picture presented by the majority of cases, he would say the typical case of consumption does not present any evidence of possessing a contagious character. The question as to the communicability of consumption under exceptional circumstances, he regarded as a very different one from the former. Meningitis or nephritis may be communicated under peculiar conditions, but this would not warrant the clinical teacher in describing them as contagious, at least in any ordinary acceptation of the word. He had seen a number of cases of consumption which

had occurred in members of one family living under the same conditions, but had never met with a single case where the evidence of contagion was conclusive. Even cases of apparent communication from husband to wife or *vice versa* could be satisfactorily explained to his mind on other grounds than of direct transfer of the disease by organic or organized particles. The susceptibility to phthisis can be native or acquired, it cannot be transmitted by particulate infection.

With regard to the etiology of consumption it would appear that there are several varieties of the disease which are indistinguishable by ordinary physical signs. In the first place there are two classes of cases which stand apparently identical, but differ in the microscopical characters of the sputum; one contains the alleged bacillus tuberculosis, the other not. This leads us to a classification of bacillary and non-bacillary tuberculosis. In the latter class of cases, in addition to syphilitic phthisis, pulmonary actinomycosis, and zoogleic (a form of mycosis recently described by Malessez Vignol*), there are included cases of ordinary pulmonary phthisis but *minus* the bacillus. In the first class, therefore, the question arises, "Are the bacilli necessarily the cause of the morbid phenomena?" He thought that they are not essential, (1) because it has been shown that consumption can be due to other causes and can pursue its course without their appearance, and, (2) because they are apparently not a necessary element of tubercle. The bacilli have undoubtedly a certain diagnostic and prognostic value, but their appearance can be accounted for on the hypothesis of their being a mere concomitant of pulmonary consumption, even though it could be shown that they increase its fatality. He was surprised that with such abundant opportunities for observation, clinical teachers had not been able to convince the world or themselves that consumption is contagious, until they are shown something under a microscope. He was more than surprised that Prof. Austin Flint had announced his adherence to the new doctrine, that "pulmonary consumption is due to the bacillus tuberculosis, and arises in no other way."

Dr. George Hamilton said that after a practice of more than half a century, he had seen no case of pulmonary consumption that could, rationally, be attributed to contagion. In two or three families, where several members were affected with this disease, attempts were made to refer it to contagion, but without any sufficient proof. It is to be borne in mind that great repugnance sometimes exists in a family to admitting a hereditary tendency to this affection, scrofula, and certain other maladies.

Dr. Dunmire said that on the question, "Whether or not simple inflammation of serous membranes could lead to tuberculosis in the non-scrofulous," he would say that he had the notes of a case in which the post-mortem preved death to be caused by phthisis pulmonalis, in which the primary trouble seemed to be the fracture of two ribs on the right side.

While both lungs were involved, the pleuritic adhesion of the right side was almost entire.

An intimate acquaintance with the family, both before and since the death of this patient, has failed to show any sign of tubercular trouble, and as far as he knows, none of this connection have died of the disease.

* Journ. Amer. Med. Association, February 16, from Archives de Physiologie.

OBSTETRICAL SOCIETY OF PHILADELPHIA.

SPECIAL MEETING HELD JUNE 6, 1884.

Vice-President, Dr. B. F. Baer, in the Chair. Dr. W. H. H. Githens, Secretary.

Dr. Wm. Godell exhibited specimens of Pyo-Salpinx and Hydro-Salpinx.

In the former case the lady was unmarried and had suffered from pelvic pains and menorrhagia for several years. Last autumn a tumor was discovered by her physician, who deemed it a fibroid of the womb. Early this year her sufferings became so great that she took to her bed. Very large doses of morphia were needed, and septic symptoms now set in. After she had been in bed for several weeks Dr. Goodell was called in to see her. The tenderness of the abdomen was now so great that the examination was made under ether. Even then the diagnosis was obscure, because she flinched and her recti muscles became tense whenever the abdominal wall was pressed upon. A cyst was discovered but of what nature it was impossible to determine. Dr. Goodell operated on her at his private hospital. The womb was studded with small fibroid nodules posteriorly it had an outgrowth as large as a small egg. Closely adherent to the womb, to the pelvic fascia and to the intestines was a thick walled cyst of the left ovary as large as the largest orange. The corresponding oviduct was very thick and enlarged to the size of a small sausage. It and the cyst were filled with a very dark purulent fluid, although there was no communication between them. The lower end of the cyst had become ne-

crosed and was so thinned out that it would very soon have given way at that point. On account of the presence of fibroids in the womb the right ovary was also removed. Attached to the fimbriæ of the oviduct were three very beautiful pedunculated vesicles; while two others, not yet pedunculated, lay in the stroma of the broad ligament. The recovery of the lady was uninterrupted.

In the case of hydro-salpinx, the patient was a widow, aged 37, who had been sent to him in order to have her ovaries removed. Severe pains began a week before the menstrual flux, culminating during the flow and continuing one week longer, then fading gradually away. For three weeks out of every month she was confined more or less to the recumbent posture, and wholly so during the menstrual week. A tear of the cervix and one of the perineum had been well repaired by two surgeons, but with no improvement. Dr. Goodell wished her at first to try the rest treatment with massage electricity and graded muscular movements, for he had repeatedly cured cases of this kind through such a mode of treatment. She was, however, too poor to take this treatment privately, and therefore was urgent to have her ovaries removed. The operation was performed fifteen days ago, and she is now doing very well indeed. The ovaries as exhibited were much enlarged and showed marked follicular degeneration. From this condition Dr. Goodell thought that nothing short of the operation would have cured her. Attached to one oviduct was a delicate vesicle with a thread-like stem of over an inch in length. In view of the frequency with which they are found he could not but think that these vesicles played some role in the economy, and that they had sometimes a pathological bearing. He had on several occasions met with small post-uterine cysts, which burst either spontaneously or under the pressure of an ordinary vaginal examination. Taking advantage of this fact he had quite recently burst one designedly by bi-manual pressure. Such delicate cysts, and also those very movable ones which remained small without increase in bulk, he was disposed to attribute to these vesicles. After bursting these cysts sometimes refill. One he had known to burst and refill at least six times before it disappeared. Now small ovarian cysts had, in his experience, thick walls, and further they rarely remain small any length of time. Dermoid cysts on the other hand often remain stationary for years, but they were generally not very movable, and they also had thick walls.

Dr. Albert H. Smith had found these cases of pyo-salpinx very difficult of diagnosis. He had been present at an operation by Knowlsley Thornton upon a case in which the lesion was double, and both tubes and ovaries were removed. Rupture had occurred previously, and had been followed by peritonitis. The patient recovered.

Dr. B. F. Baer inquired if Dr. Goodell would recommend rupture of cysts arising from the hydatids of Morgagni.

Dr. Goodell would consider it good surgery for the purpose of preventing the further growth of the cyst. He had always found the fluid in small cysts to be unirritating.

Dr. Albert H. Smith remarked that Schröder holds that the fluid of an ovarian cyst is not noxious to the peritoneum. He makes no effort to protect the peritoneal cavity from its ingress during an operation, and yet his statistics show a remarkable success.

In response to a question by Dr. C. Meigs Wilson, *Dr. Goodell* stated that the dressing of the wound after the operation was glycerole of carbolic acid with the Lister gauze.

Dr. Goodell also gave the following history of a CASE OF HYSTERECTOMY.

The woman was unmarried, aged 47. Her monthly fluxes began to be free in 1867. A year ago they became so exhausting that she could not pursue her trade as a seamstress. On April 30th she consulted Dr. Goodell who found the whole abdomen filled with multiple fibroids of the womb. The cervix had disappeared, and the os uteri lay so high up that it was not possible to introduce the sound. The operation was performed at the Hospital of the University of Pennsylvania on May 22nd, on the same day with the preceding case. One outgrowth as large as the two fists contained a cavity filled with cheesy matter and was so adherent to the abdominal wall and intestines as to need the knife for its relief. Koeberle's wire clamp was passed around what corresponded to the neck of the womb, but it was as large as his arm above the elbow. The woman's recovery thus far has been uninterrupted. The temperature reached 100° but once. The

clamp fell off on the 16th day, leaving a very deep funnel-shaped pit. He had intended to exhibit the specimen, but it was too bulky to carry, and also had become quite offensive. In this case had he been able to reach the ovaries, or to have discovered them, he would have removed them in preference to performing hysterectomy; but the firm adhesions prevented the rotation or the lifting up of the tumor, hence the ovaries were inaccesible. Sometimes even when the uterine fibroid can be lifted out of the wound and the ovaries reached, these organs are so embedded in the fibroid, or so drawn out in ribbon-form on the surface of the tumor, as to make their complete removal impossible. When, however, the ovaries can be removed with safety, the operation is a most promising one, as he could attest from several most successful cases.

Dr. W. T. Taylor reported the following case of PARTIAL PLACENTA PREVIA.

Mrs. S., an English woman, aged 46 years, the mother of ten children, came to see me in December, 1883, in consequence of abdominal pains, headache and vertigo, with a suppression of her menses, which she attributed to a "change of life," as she had been irregular for a year past. She also had numbness with tingling in the hands and feet, and had not been so affected in any former pregnancy. Consequently she would not believe in her condition until some weeks later when she quickened.

In the month of February last she had enlargement of the veins of the legs with edema of the feet and ankles, for which she took occasional doses of potassium bromide with a solution of cream of tartar (ʒi to water one pint), to be taken freely. By this treatment she was temporarily relieved.

On March 27th, she had abdominal pains and a profuse hemorrhage, which saturated her clothing and greatly alarmed her. On examination I found the os uteri high up and slightly open. Although the hemorrhage diminished, yet the pains would recur at intervals, and I fully expected labor would soon begin. Under the use of equal parts of wine of ergot and solution of sulphate of morphia she began to get easier, and in a few days was out of bed and able to resume her household duties; feeling more comfortable, as the enlarged veins were smaller, her feet and ankles had diminished in size and the headache gone entirely. I told her that nature had come to her relief, and bled her without my ordering it.

Feeling satisfied that this was a case of placenta previa, and that there was no immediate danger, I concluded the most prudent course was to let nature alone, and wait until labor began. She had no more trouble until May 10th, when she passed a large clot of blood and complained of slight pains in the abdomen; these occurred occasionally for two days when the membranes ruptured, and a sudden gush of water followed by a flow of blood indicated that labor had begun. On examination I discovered within the os a spongy, ragged, bleeding mass of tissue, which was recognized as the placenta; with each pain the flow of blood increased as the cervix dilated. Sweeping my index finger around within the mouth of the womb, as far as I could reach, to detach the placenta from the uterine walls and assist the first stage of labor, I felt the fetal head beyond.

To arrest the bleeding, which, if it continued, would exhaust the mother and destroy the child, I plugged the vagina completely with strips of old muslin, well saturated with lard, and waited patiently for the os to dilate and the head to advance, giving at the same time occasional doses of quinine and wine of ergot as a tonic and stimulant. In about an hour the advancing head had expelled a part of my tampon, and on removing the remainder, I found that the bleeding had ceased and the vertex was presenting in the left occipito-posterior position. Auscultation revealed a feeble fetal circulation, but as the pelvis was roomy and my patient somewhat exhausted, I gave her freely of milk punch until her pulse became stronger, which it did in half an hour, when as the head had ceased to advance I applied the forceps and delivered her of a medium sized girl, which in a few minutes began to cry with some vigor, contrary to my expectations, for I had told them it would probably be dead. Its vitality had been preserved by the adhering part of the placenta, which then came away quite easily. A teaspoonful of fluid extract of ergot contracted the womb firmly. My patient was weak for several days, but under the use of tonics with nourishing food she soon recovered her usual strength.

Dr. A. H. Smith remarked that this case being partial and without profuse hemor-

rhage, could have been best carried through by rupturing the membranes and bringing down the head which would have stopped the hemorrhage as soon as it engaged in the superior strait. Dr. Smith asked the question: Under what circumstances are we warranted in interfering? If the hemorrhage is alarming and the patient exhausted, she is in a poor condition to bear interference, and on the other hand we have no right to interfere if there is no pain or hemorrhage. To interfere by manipulation is very dangerous, unless the uterine contractions are rapid and effective after labor once begins. The position of the child should be carefully and accurately determined by external manipulation, before interference becomes necessary, so as to know where to seek the feet if turning becomes imperative. When the placenta previa is complete, dilatation of the os causes a terrific hemorrhage, the blood streams from the patient like water from a hydrant or a small fire plug, and death comes very quickly. Only perfect knowledge of the condition of things, and the position of the child, will enable the physician to avert the doom. Now as to the tampon. I would not use it. It hides the hemorrhage which may be going on profusely behind as was so vividly described by Dr. Goodell in his paper on "Concealed Accidental Hemorrhage of the Gravid Uterus," in vol. 2, *Amer. Journal of Obstetrics*, in which he showed that the woman might bleed to death without one drop of blood escaping externally. The tampon conceals the hemorrhage without necessarily preventing it, and while it remains in place one hand of the physician should be constantly on the patient's pulse to note instantly any failure of the heart; while the other should be on her abdomen to note any changes in size of the uterus or position of the fetus. In Dr. Taylor's case the treatment was beyond criticism because the result has been happy.

Dr. Goodell agrees with Dr. Smith that placenta previa is the most formidable complication in obstetrics. No general rule can be made applicable to the treatment of all cases. In partial ones the membranes should be ruptured and the head brought down. It must always be borne in mind that in these cases the implantation of the placenta has caused increased vascularity and thickness of the cervical walls, they are easily ruptured and if torn bleed profusely. There is greater danger of septicæmia from absorption of decomposing lochial discharges when passing over this surface if it is torn. He well remembered one case which he attended years ago in consultation with Dr. Augustin Fish, since deceased, in which in consequence of what he now considers undue haste lacerations of the cervixoccurred,and although the labor terminahappily septicæmia set in a few days later and resulted fatally. It would have been better in that case to tampon. When the placenta is not central there is very little danger; there is some. The tampon may be used, but the pulse must be constantly watched and frequent abdominal palpitation should be made. He had been struck with the method practiced by Dr. Elwood Wilson more than twenty years ago. It consisted in gentle digital dilatation of the os; introducing first one finger, then two and so on; as soon as sufficient space was obtained he gave ergot, made podalic version and delivered. Very few practitioners advise that method. Dr. Goodell had not met with many cases, and the one spoken of above was the only fatal one. He has used Barnes's dilators, taxis, strength and courage, and has tried to adapt his treatment to the indications of each particular case.

Dr. W. H. Parish thought the tampon was not used as frequently now as it was a few years ago, either in the form of Barnes's dilators or the vaginal plugs. Under similar circumstances he would probably do as Dr. Taylor did. Partial placenta previa is not very dangerous, but in complete the hemorrhage is excessive. In one case he had tamponed for several hours when, the os being dilated, he etherized and speedily delivered a living child. The mother was in imminent danger of death from hemorrhage. The abdominal aorta was compressed, ice was used to the cervix but without success. The hemorrhage was controlled by the application of a cloth wet with Monsel's solution to the denuded cervical and uterine surface.

Dr. Taylor has used the tampon in several cases of partial placenta previa, and in numerous cases of abortion, and has never yet had bleeding to go on behind it. The line of treatment practiced in this case has always proved satisfactory as regards results.

Dr. Goodell remarked that the womb at

term was large, and concealed hemorrhage might be free enough to cause death, but there was no such danger in an abortion at two or three months.

Editorial.

INTERNATIONAL MEDICAL CONGRESS.—We have before us the "Rules and Program" of the Eighth Session of the International Medical Congress, which will be held at Copenhagen from the 10th to the 16th of August, under the patronage of his majesty the King of Denmark. The indications are that this Congress will prove a striking success, and will be very largely attended by representatives from all nationalities. The scientific work as marked out on the program will be of the most important and valuable character. Addresses in the general meetings will be given by some of the most noted men in the profession: Prof. Virchow, will speak on Metaplasia; Prof. L. Pasteur, on Morbific Micro-Organisms and Vaccina-Matters; Sir William Gull, on the International Collective Investigation of Disease; Prof. Tommasi-Crudeli, on the Natural Production of Malaria, and the Means for Making the Malaria-Countries more Healthy; Prof. Verneuil, on The Neoplastic Diasthesis; Prof. Panum, on Investigations of Food Rations, especially in Hospitals, Infirmaries and Prisons of Different Countries. The work announced in the various sections covers a wide field of discussion, and presents an array of imposing and interesting subjects. The contributions emanate from the pens of distinguished specialists in every department of medical science, and from representatives of nearly every European nation. The work is conspicuous for the absence of contributions from American authors. Prof. Austin Flint, of New York city, is announced to read a paper before the Section of Medicine, "On a Uniform Nomenclature of Auscultatory Sounds in the Diagnosis of Diseases of the Chest." Dr. W. Seely, of Cincinnati, will read a paper before the Section of Ophthalmology, entitled "Contributions to Ocular Therapeutics," and Dr. Solis Cohen, of Philadelphia, will read a paper before the Section of Laryngology, on "The Prognostic Significance of the several Local Manifestations observed in Tuberculosis of the Larynx." These are the only papers announced by American authors. It is probable this conspicuous scarcity of American contributions is only temporary, and that the work before the sections will show that the American contributors were not so far behind other nations, as the program indicates. The representation of delegates from this country will be large and creditable. It is probable that many of the American delegates have carried contributions in their trunks, which will be offered to the sections without previous notice. This is a peculiar way American medical authors have of doing. Among the noted papers to be read before the Congress will be Dr. Koch's paper on "Morphological and Pathological Variability of Pathogenic Bacteria"; Prof. Lister's paper on "The Listerian Antiseptic Treatment in its Present Form"; Prof. Paul Bert's paper on "Anæsthetics in Surgery"; "Nephrotomy and Nephrectomy," by Dr. Knowsley Thornton; "Trepanation in Localized Diseases of the Brain," by Dr. Lucas-Championière, Prof. Ferrier and Prof. Molière. "Cæsarian Section and Its Modifications," by Prof. P. Müller, will doubtless prove a most acceptable contribution from the originator of the modified Porro-Cæsarian Section.

It will thus be seen from the very short list of papers we have announced that the scientific work of the Congress promises a great deal. The social side of the Congress is perhaps more inviting to the American delegation than the scientific feature of the Congress. The army of tired and worn-out medical men who seek rest in Europe every summer will, as a general rule, take in Copenhagen in their European tour. The Danish capital is noted for its many attractions, and a hospitable reception is in waiting for all who visit the city during the sessions of the Congress.

THE WILSON SANITARIUM.—During the present week a noble charity known as the *Wilson Sanitarium*, located on the Western Maryland Railroad ten miles from this city, has inaugurated a work of beneficence of the broadest and most useful character. A few years ago Mr. Thomas Wilson, a citizen of this city, died possessed of a large fortune, accumulated by successful business enterprises. He had the misfortune to lose early in life the two only children born to

him. It is related that one child, a boy, died with a summer complaint, perhaps entero-colitis. At any rate Mr. Wilson's mind was so disturbed by this bereavement that he conceived the idea of founding and endowing an institution which would have for its sole object the reception and treatment of sick infants and young children affected with the diseases incident to the summer season. Among other charitable donations, Mr. Wilson bequeathed a half million dollars to the Wilson Sanitarium, an institution just inaugurated. The Board of Trustees, entrusted with the fund set apart for this charity, began work at once, and within the incredibly short space of three years have purchased a farm, erected suitable buildings and opened an institution which must for years to come exercise the most useful influence in saving human life. The site selected is a most fortunate one. By reason of its accessibility to the city, its high and dry location, and the picturesque beauty of its landscape, it is in every respect admirably adapted to the purposes of a sanitarium. Such buildings as have been erected are attractive, ornamental and well planned. The entire arrangement is designed to promote the comfort and health of its inmates. Much care has been exercised in securing subsoil drainage and ventilation, and in making the surroundings as healthful and invigorating as possible. The Trustees have obtained the aid of the best architectural skill and talent in perfecting its plans, and it is surprising how soon an ordinary farm has been converted into a landscape of remarkable beauty, utility and effect. Very much has been done in a very short time towards making the Sanitarium an institution of great practical value to the poor children of our city, yet the work now inaugurated is only the beginning of a work designed to be carried out in the future. The Trustees have aimed to make haste slowly. The complete success of the charity must be foreshadowed by experience and gradual development. Hence, for the present, it is proposed to limit the number of cases received by the Sanitarium. For the present, excursion tickets will be issued every day during the week, except Saturdays and Sundays, during the months of July, August and September. The excursions on Fridays are designed for colored mothers and children exclusively. Tickets will be distributed to all of the Dispensaries in the city, where they will be issued to mothers and infants, and to children under five years of age who are suffering from the diseases incident to the summer season. Any physician can secure tickets for such patients as will come under the claims of the charity by applying to any of the Dispensaries, or to any of the Trustees or physicians in charge of the institution.

There is no cost for conveyance to the Sanitarium.

Patients will leave the city on the 7.50 A. M. train, and will return from the Sanitarium at 6.10 P. M. Three meals are furnished during the day, with such medicines and clothing as may be required. In cases of extreme illness patients may remain over night at the institution in cottages provided for this purpose. The visiting physician, Dr. W. D. Booker, of this city, and the resident physician, Dr. Emily W. Fifield, are in daily attendance.

It will thus be seen that this institution is undertaking a mission which will exercise a most beneficial influence upon the health of the infant population of this city. The direct saving of human life by this charity will doubtless very soon be shown by the city mortality statistics. The saving of human life is not the only object attained, for how much value must be attached to the amelioration of those conditions which so depress the anxious and care-worn mothers of our poorest citizens! Whilst the primary object of this Sanitarium is the alleviation of the sick children of the poor of our city, its secondary object must commend itself to every physician. This object has for its end the collection of statistics bearing upon the treatment of the diseases of children, which shall benefit not only the medical profession, but the public generally. The physicians in charge of the Sanitarium have been provided with every facility for observing and collecting facts bearing upon infancy hygiene, diet, and therapeutics. These facts will doubtless have their value when made known. Thus the first to inaugurate the movement among the series of medical charities now growing up in our city, the Wilson Sanitarium promises to promote a useful and humane work of wide influence and lasting duration.

THE VALUE OF PROPHYLAXIS IN PUERPERAL FEVER.—If proof were needed to establish the great value of prophylactic measures in the prevention of puerperal fever, abundant evidence could be furnished from various sources, but a more striking array of facts cannot be found than the statistics of the Vienna Obstetric Clinic. From 1847 to 1867, 64,500 cases of labor were treated in this clinic with a mortality of 3.45 per cent.; and from 1862 to 1878, in Carl Braun's wards there have been 61,949 cases, with a mortality of 1.65 per cent. Since 1878 this mortality has been still further reduced. At the present time the mortality rate from puerperal fever in Carl Braun's wards clinic is one-half per cent. During the winter quarter of 1883 not a single death resulted from puerperal fever out of some 900 cases of labor. This diminished mortality among lying-in women is in striking contrast with the statement made a few years ago by the Berlin "Puerperal Fever Commission," to the effect that this disease destroys nearly as many lives as small-pox or cholera. Whilst brilliant success in the field of surgery is shown by the diminished mortality following all capital operations, it is cause for congratulation that these results are not limited to a single field of scientific work but may be claimed by scientific workers in every field of medical and surgical practice.

Miscellany.

THE POSSIBLE DANGERS OF TRACHELORRHAPHY.—In a paper on this subject published in the *Amer. Journ. of Obstet.*, etc. for June, 1884, the author, Dr. B. Hughes Wells, of New York, presents the following resumé:

"The most important points which may be deduced from what has been said concerning the *primary dangers* would seem to be:

1. That primary hemorrhage, though not uncommon, is rarely alarming, and when severe, is easily controlled by traction exerted upon the cervix, or by one or more sutures passed deeply under bleeding points.

2. That secondary hemorrhage is rare, but, when it does occur, is a serious danger. That it may happen, not only when the circular artery has been wounded during the operation, but also at times as a consequence of the cutting of a suture into a previously intact arterial twig. That when it does happen, if very severe and the instruments are at hand, time should not be wasted in trying other means, but that we should at once apply the deep suture, twisted tightly on the side from which the bleeding comes.

In the absence of the proper instruments, and in moderate cases, tight tamponing with discs of alum-cotton will suffice, and not interfere with union.

3. On account of the danger of secondary hemorrhage from the cervix, it is an open question, whether, in those cases where both lesions exist together, it is not best and wise to defer the repair of the lacerated perineum to some time after the closure of the cervical rent and, not, as a routine practice, do both operations at one sitting.

4. Menstruation coming on before the removal of the sutures does not necessarily cause trouble, if only they be allowed to remain *in situ* for a few days longer, or until it ceases.

5. Non-union occurs in about eight per cent. of all operations, the percentage of failures being larger in hospital than in private practice.

A flabby hyperemic condition of the cervix is most apt to lead to this result, but it may also be produced by too tight or too many sutures.

6. Serious inflammation is not a very infrequent sequence, and even death occasionally follows.

7. Inflammation frequently occurs where there has been previous cellulitis, and it can be best avoided by recourse to the manipulative measures described.

What have been considered as *secondary dangers* by some writers, are shown to be in most cases palpable benefits, the facts given proving the following:

1. Trachelorrhaphy does not cause sterility.

2. On the contrary, it causes a decided increase in the productive fertility of the subjects of the operation.

3. After the operation there is even less liability to subsequent cervical laceration than there was at first.

4. There is no danger of anything like serious obstruction to subsequent labors by the cicatricial tissue formed in the cervix.

5. There is very little danger in producing serious stenosis of the cervical canal, except through inexcusable carelessness."

CAUSES AND CURE OF CORPULENCE.—A stout, active man began to superintend the working of a new beer in a brewery, and occasionally to sit up at night to watch the sweet-wort, an employment requiring neither activity nor labor. Gradually he began to drink much new beer, in addition to leading a quiet and inactive life; he commenced to increase in bulk, and continued to enlarge until he became of such unwieldy size as to be unable to move about, and could not get up from the sitting or lying posture without help. His cheeks hung down to his shoulders and breasts, and finally he was dismissed as useless,

He returned in two years, weighing but little over one hundred and forty pounds. His story was that, being unable to work, he was at first almost starved. When he became sufficiently reduced in size to be able to walk about, he engaged as farm laborer, and was able finally to go through very hard work for a whole day on an extremely small pittance of bread and cheese. His health had never been so good as it then was, and his only drink was water.—*Medical Record*, June 14.

Physiological Albuminuria.—The growing opinion that albumen is more frequently present in urine than was formerly believed, receives support from a recent thesis of M. de Chateaubourg,* in which observations are reported conducted chiefly upon healthy soldiers and children.

The tests were made by several reagents but especially with that of Tanret (double iodide of mercury and potassium strongly acidulated with acetic acid) employed according to the method of Prof. Bouchard. These means are necessary for recognising the small amounts of albumen often found, as, for instance, from .005 to .01 gramme of albumen to a litre of urine.

The general results obtained by M. de Chateaubourg show that albuminuria is frequent in healthy people. For instance, in 701 examinations made upon persons in perfect health, albumen was found in 592 cases, giving a proportion of eighty-four per cent. The cases where there was a considerable quantity, that is, more than .03 per litre, were sixty-four per cent. In 169 cases even, the amount of albumen was more than .25 per litre.

The author concludes that this physiological albuminuria is variable and modified by many casual circumstances. Thus there were individuals who one day had .25 of albumen per litre and the next day had none.

It is modified among other things by bodily fatigue, which markedly increases it, as could be seen in a body of soldiers, both in the number affected and the amount per man. Brain work also increases albuminuria, as was observed in a number of young men preparing for an examination. Digestion, if accomplished during repose, has no effect on the albuminuria. But not so menstruation and the generative functions. Cold baths were found to have a marked effect. Fifty-three men having taken a five minute bath were found to have albuminuria to a man, but in varying degree. A preliminary examination had shown that sixteen of the men had no albumen when they got out of bed. The amount in the others was increased after the bath. Most of these men had albumen the next day but in much diminished amount.

It is pointed out that this influence of cold baths has an important effect. For if it be admitted, as Semmola has long taught, that the repeated transudation of albumen through the renal filter may produce alterations in the renal epithelium, it would seem that the bathing should be carried on only with great caution by persons having transient albuminuria, especially if it be easily subjected to exacerbations.—*Boston Med. and Surg. Journ.*

* Journal of Medicine, January, 1884.

Johann Hoff's Malt as a Tonic.—The value of the genuine Johann Hoff's Malt (Eisner) as a tonic has long been known to the profession. It has seemed to us that better effects are gained by using it in larger quantities than those usually prescribed. Johann Hoff recommends half a bottle in the morning and the remainder in the evening. A large wine-glass three times a day, so that nearly a bottle may be consumed in twenty-four hours, will give the best results. It is as a tonic in anæmia, nervous exhaustion, and the general malaise of run down women, that it is especially indicated. It excites the appetite and promotes food assimilation. It is a pleasant stimulant that does not damage the stomach. As an imported article its price is higher than a similar rival preparation, but this is more than compensated for in the fact that the article is richer in necessary principles, and that the bottle holds five or six ounces more. We think that if the profession will give it in the proportions mentioned they will have even large cause of congratulation.

Prolapse of the Uterus.—Since December 14, 1881, Dr. Alexander, of Liverpool, has operated in twenty-one cases of prolapse, or of posterior displacement of the uterus, by shortening the round ligaments. The results have been generally very satisfactory. The operation has been performed by others; among these are Dr. Inlach, one of

the surgeons to the Liverpool Hospital for Women, who has operated fifteen times in the last sixteen months, and Dr. Burton, another surgeon to the same hospital, who has operated six times.

The operation appears to be a reasonable one, not very difficult of performance, and, if its results prove permanent, one that is to be commended, for certainly posterior displacements and prolapse of the uterus, if at all chronic, while they may be palliated, or relieved at least temporarily, very often are most rebellious to cure.—*Med. News*, June 14.

Preserved Meats.—Drs. Ungar and Bodlander, of Bonn, have recently been engaged in making an inquiry as to whether the contents of preserved meat-tins contain any appreciable quantity of the metal of which the tins are composed, and the conclusions they have arrived at are that a not inconsiderable quantity of tin passes over into the conserve. They could not decide upon the precise form in which the tin was present, but they ascertained the fact that it was not in soluble form, or, at any rate, in a combination not readily soluble. Experiments on dogs and rabbits showed that the tin was absorbed by the intestinal mucous membrane, and it was detected in the urine, heart, liver, kidney, spleen, brain, and muscles. They explain the fact of so little being heard of tin-poisoning in human beings by the comparatively recent introduction of tinned meats as an article of food, by their high price leading to a minimum consumption, and finally to the presence of other metals, especially lead, used in soldering, to which symptoms of poisoning, when such do occur, are generally attributed. It is important that our knowledge on this point should be accurate and beyond doubt, as tinned meats are much used among us, and if the danger is real, the best safety will lie in facing it.—*Med. Press.*

Three New Anti-Syphilitic Remedies. The "Revue de thérapeutique médico-chirurgicale" (quoted by "Lyon Medical") mentions three new remedies against syphilis: *Cascara amarga*, baroba, and *Berberis aquifolium*. The *Cascara amarga* is a tree of the genus picramina, found in Honduras. A liquid extract is made from the bark, and is given in doses of forty or fifty drops in the secondary syphilis of adults. Its action is quite prompt and has a remarkable tonic effect. It was brought forward by Dr. Frohling, of Mexico, who cured a syphilitic iritis with it in three days. Baroba is found in Brazil. From fifteen to sixty drops of a liquid extract made from the leaves are to be given daily. This extract, which was made use of by Camille Weber, of Leipsic, and by Edson, in inveterate forms of secondary syphilis, is now recognized in the French pharmacopœia. It is a valuable anti-syphilitic, having also evident tonic properties. The *Berberis aquifolium* comes from Tennessee. Baird, of Moscow, advises the use of an aqueous extract in conjunction with iodide of potassium.—*N. Y. Med. Journ.*

Death From Chlorate of Potassium.—A man, 49 years of age, by mistake took a teaspoon of chlorate of potassium in water every two hours, until he had taken in thirty-six hours nearly two ounces. Dr. Bohn (who reported the case in the *Deutsche Med. Woch.*) found him in a condition of collapse, suffering greatly from pain in the stomach, with complete suppression of urine. Subsequently, sensations of numbness of the hands and feet caused much distress and anxiety. In a period of twenty-four hours, only about half an ounce of dark colored urine could be obtained containing blood-corpuscles and brownish tube-casts; and the presence of methæmoglobin was shown with the spectroscope. The collapse increased, and death occurred in two days, preceded by jaundice.

The spleen, liver, and kidneys were brown in color; the uriniferous tubules were filled with brownish masses. The red blood-corpuscles were changed in shape and appearance. A similar appearance after diphtheria may be due to the remedy and not the disease. Dr. Bohn condemns the delivery of chlorate of potassium into unprofessional hands or its common sale as a harmless remedy.—*Med. Times.*

Terebinthinate Vapor Baths for Dysmenorrhœa and Leucorrhœa was the subject of a paper read by M. Brémond at the same meeting. He had observed that the process was accompanied by the disengagement of ozone, which could not be but beneficial to the general nutrition. In the discussion, M. Constantin Paul remarked that he had known the baths to act well as an emmenagogue in women who were inclined to grow stout, but he wished that the reader had been more explicit in speaking of leucorrhœa, which was only a symptom. As for ozone, it could easily be made by inepxensive processes. *N. Y. Med. Journ.*

A Good Remedy for Burns.—Dr. Finfrock, writing in the *N. Y. Med. Record*, states that, having had during the last twenty years to treat an unusual number of cases of burns, he has found the following remedy by far the best. He first applies powdered bicarbonate of soda, in order to relieve the pain, and then dresses the parts with the following

ointment, changing the dressings only when the discharge renders it absolutely necessary: ℞. Ceræ Flavæ, ʒ j; Ol. Lini. Rectif., ʒ iii; Acid Tannic, ʒ j; Bismuth, gr. xx. Melt the wax in a clean tin or porcelain vessel, add the oil, and heat to nearly boiling. Remove from the fire, and add first the tannic acid finely powdered, and then the bismuth. To be thoroughly incorporated by stirring until cold.

THE TREATMENT OF DIPHTHERIA BY PAPAYOTIN.—During the last few years Dr. Schöffer has tried most of the remedies recommended to be used in cases of diphtheria, and obtained the best results from papayotin; last summer he treated 47 cases with a five per cent. solution (of papayotin). He begins the treatment as soon as possible, and orders the patches to be painted every five or ten minutes with this solution; in a few hours the membranes are said to be removed, and at the same time the fever disappears. Ewald suggests that an active pancreatic extract should be used instead of papayotin.—*Med. Times and Gaz.*

A PERIODICAL PAINFUL AFFECTION BELIEVED TO BE LOCATED IN THE LIVER, ITS CAPSULE, OR BOTH, OR POSSIBLY A TRUE IRRITANT OF THE CAPSULE OF GLISSON.—Dr. R. Harvey Reed, of Mansfield, Ohio, read a paper before the Section on Practice, American Medical Association, with this title.

The paper described a peculiar train of symptoms which the reader and Dr. J. W. Craig have found occurring in a number of patients during the past six or seven years, which he inclined to believe is the result of an irritation of the capsule of Glisson. He defined the disease to be a rheumatoid irritation of a part or all the connective tissue which forms the inner tunic of the liver, and envelops the portal vein, the hepatic artery and duct, together with the lobules of the liver, and which is characterized by burning, boring, throbbing, darting or lancinating pain occurring usually at night, but unattended with signs of inflammation, by chill, fever, constipation, loss of appetite or headache.

The cause of this affection was attributed to sedentary habits, the writer stating that neither he nor Dr. Craig had ever seen it occurring in strictly active persons, and it is seldom observed in persons addicted to intemperate habits, or in those afflicted with syphilis, either constitutional or acquired, but mostly in persons of unquestionably temperate habits.

The symptoms are described as coming on so insidiously that the patient is scarcely aware that he is afflicted with anything more than a slight colic or a touch of neuralgia until it gradually increases in frequency and severity of so grave a nature as to become alarming.

The attacks are described as coming on periodically, generally at night after the patient has retired and fallen asleep, when he is awakened with a burning, shooting pain in the region of the liver of an exceedingly distressing character, which may last for hours or even days.

The doctor, after giving the differential diagnosis between this disease and the passage of gall-stones, interstitial hepatitis, congestion of the liver, perihepatitis, inflammation of the bile ducts, cirrhosis and hepatalgia, remarked that the prognosis was exceedingly favorable, he having never yet met with a fatal case.

He stated that while it would continue for years if not properly treated, it would generally yield in a few weeks to a proper line of treatment.

The treatment which the writer found to be the most successful consisted in the use of alkalies combined with bitter tonics, of which he preferred the bicarbonate of sodium and pulverized hydrastis cannadensis (about five grains of the latter to a teaspoonful of the former, given in half a glass of water before meals, or the sulphate of soda combined with the sulphate of hydrastis before each meal.)

He considered the use of mercurials in this disease as injurious rather than beneficial and advised the use of anodynes only when the pain was too severe to get along without them.

The writer closed his paper by giving the reports of three cases occurring at intervals during seven years, selected from some twenty-five cases which the author had seen altogether as an illustration of the peculiar train of symptoms described in the paper.

OVARIOTOMY IN A YOUNG GIRL.—Dr. Duchamp relates in the *Archives de Tokologie*, for January, the case of a girl, eight and a half years of age, who came under his care on account of a tumor situated a little to the right of the umbilicus. It was round and firm, with indistinct fluctuation, and no adhesions to the wall of the abdomen, and was very moveable. Its development had been rapid, and it now by its tension caused some inconvenience. Although its precise seat could not be determined upon, its removal under chloroform was resolved upon. When an incision had been made, the centre of the tumor projected between the lips of the wound and had a very cystic aspect, and after a litre of liquid had been discharged, the mass was draw out, and proved to belong to the left ovary. The pedicle was seven or eight centimetres in breadth, and was divided by means of Paquelin's cautery and returned into the abdomen, having been tied with antiseptic silk. The tumor proved to consist of the ovary and the greater part of the tube. The child made a rapid recovery.—*London Medical Times.*

FORMULA FOR HÆMORRHOIDS.—Dr. B. Lee, of Philadelphia, recommends the following: ℞ Pulv. Rhei. ʒ iv; Pulv. Aloes ʒ iii; Pulv. Myrrhæ ʒ ii; Sapon. Hispan. ad ʒ ii Ol. Cajeput ʒ i. The powders are to be rubbed up together, the soap worked in, and then the oil. The well-mixed mass should be used as fresh as possible, and should be kept in air-tight bottles. Three grains of the mass make an effective pill, which is not irritating, and may be used a long while without diminishing the susceptibility of the intestines, and often with positive benefit to the hæmorrhoidal affection.—*New York Medical Record.*

ACCORDING to the *Med. Times and Gaz.* the Minister of Public Instruction at Berlin has resolved upon the foundation of a professorship of hygiene with a hygienic institute attached, in the Berlin University, with Dr. Koch is incumbent. No such institute has hitherto existed in any of the German universities.

Medical Items.

Professor Purgesz, of Buda-Pesth, says he has found Friedländer micrococci of pneumonia in other diseases, and has not always found them in pneumonia.=The Louisiana State Medical Society urges the State Legislature to create a State Board of Health and to establish a law requiring the teaching of hygiene and elementary physiology in the public schools.=Dr. Geo. Johnson recommends the use of picric acid in powder form as the most reliable test for albumen. A small quantity of the powder added to undiluted urine will at once reveal the presence of albumen.=Mr. Lawson Tait will deliver an address on abdominal surgery at the meeting of the Canadian Medical Association, in Montreal, August, 25 and 26.=A young medical student has offered himself to Pasteur as a subject for experiment with rabies.=The dinner tendered to Dr. Alfred Stillé by the medical profession of Philadelphia, on the 5th of June, drew together a large number of distinguished physicians and brought out some excellent addresses. Prof. Stillé's remarks were extremely appropriate and touching.=The Mississippi Valley Medical Association will hold its next meeting in Springfield, Ills., in September.=Acetate of silver is recommended by Rosenthal for hypodermic use in tabes.=It is said that at one time there were as many as 150,000 cases of leprosy in Europe, and that nearly half the hospitals in England were built for them. The disease was introduced into England by the crusaders in the reign of Henry I.=Prof. Weber-Liel, of Berlin, a well-known otologist, has accepted a call to Jena, where he has charge of a clinic.=The Physicians' Mutual Aid Association, of New York, has proved a success and now pays each deceased member's family $475.=Congress has passed a bill authorizing the National Academy of Sciences to receive bequests and gifts, to be held in trust and used for the promotion of science.=Dr. Hans Virchow, a son of Prof. Virchow, heretofore a *Privat-Docent* at Würzburg, has been called to Berlin to take charge of the histological course, under Waldeyer, the new professor of anatomy.=Dr. Henry Wentworth Acland, a prominent English physician, has received the title of Knight Commander of the Bath.=Bordentown, N. J., contemplates building a crematory for the benefit of New York and Philadelphia.=A Chinese physician has been permitted to register in New York City to practice among his countrymen.=Dr. Morris H. Henry, of New York City, has had the degree of LL.D. conferred upon him by Rutherford College, North Carolina.=Prof. J. J. Chisolm, of this city, recently gave a reception to a number of his professional friends, which proved to be a most pleasant social reunion.=Dr. Edward Warren-Bey, formerly of this city, in a recent letter to Gaillard's medical journal says that he owes to Prof. Charcot the right to practice medicine in France and to wear the Cross of the Legion of Honor on his breast.=The universities of Prague and Gratz have each recently established chairs for hygiene.=The Berlin Polyclinic proposes to become an International Educational Institution, and in order to have Docents as Lecturers in the English Language, English M. D.'s will also be admitted as assistants.

CHANGES IN THE STATIONS AND DUTIES OF THE OFFICERS SERVING IN THE MEDICAL DEPARTMENT U. S. ARMY, from June 10th, 1884, to June 16th, 1884:

Middleton, Passmore, Captain and Assistant Surgeon, leave of absence extended three months on surgeon's certificate of disability.

Barnett, Richards, Captain and Assistant Surgeon, assigned to duty as Post Surgeon, Mount Vernon Barracks, Ala.

Gardner, Edwin F., Captain and Assistant Surgeon, relieved from duty at Fort Walla Walla, Wash. Terr., and assigned to duty as Post Surgeon, Fort Canby, Wash. Terr.

Changes in Department of Texas :

Porter, J. Y., Captain and Assistant Surgeon, from Fort Ringgold, Texas, to Fort Brown, Texas, as Post Surgeon.

Maddox, T. J. C., First Lieutenant and Assistant Surgeon, from Fort Clark, Texas, to Fort Ringgold, Texas, as Post Surgeon.

Black, C. S., First Lieutenant and Assistant Surgeon, from Fort Concho, Texas, to Fort Clark, Texas.

Original Papers.

REPORT OF THE OBSTETRIC DEPARTMENT OF THE PHILADELPHIA HOSPITAL FOR THE QUARTER ENDING APRIL 30, 1884.*

BY THEOPHILUS PARVIN, M. D.,

Professor of Obstetrics and Diseases of Women and Children in Jefferson Medical College.

By the kindness of Dr. Bernardy, my associate in term of service at the Philadelphia Hospital, the entire charge of the obstetric department was given me, while he had that of diseases of women and children. It seemed to me that by this division of labor both the interests of patients and of medicine would be best subserved; and I desire publicly, as I have done privately, to express my gratitude to Dr. Bernardy for his consent to this arrangement. Further, let me gratefully acknowledge the zealous and faithful work of the *internes* serving under me, in the collection of statistics, and making observations, without which the preparation of this paper would have been impossible. My debt to these gentlemen, Drs. Phillips, Parkhill, Randall, Lazarus, and Voorhees, is very great. Some of the statistics and observations, or their results, have been given elsewhere; others will be presented you now, and still others wait another opportunity.

And now, gentlemen of the Philadelphia County Medical Society, unexpectedly invited to read a paper before you, and thanking you for the honor, my endeavor will be to present facts rather than theories, results more than reasoning, hoping that possibly some of the facts and results may be of present interest and of future use, and knowing that the discussion they may evoke will have these characteristics.

During my term of service at the Hospital, seventy-two women were confined; this number, however, includes two cases of premature labor, and one of miscarriage at six months and a half; there was one case of twins. In sixty-nine cases the vertex presented; presentation of a foot, of the breech, and of the shoulder, each occurred once; the presentation in the case of miscarriage is not given. Forty of the seventy-two mothers were primiparæ. Of seventy-three children born, thirty-nine were females, and thirty-four males—a preponderance of female births which is at least remarkable. Fifty-one of the mothers were white, twenty-one black. The average weight of the white children was seven pounds and a little more than two ounces; that of the colored children, seven pounds thirteen ounces and a fifth: there was thus a difference of eleven ounces in favor of the latter.* The heaviest child was a white one, its mother a primipara; its weight was nine pounds and twelve ounces. Comparing the difference between white male and female children, it was a little more than one pound;† while the corresponding difference in black children was only two ounces and one-fifth. Of course the number of cases observed is too small to allow a positive conclusion, but it suggests that the difference between the two sexes in the white and in the black races in regard to weight of the new-born is much more marked in the former than in the latter. If the results obtained in these limited observations should be confirmed by more extensive ones, we would have a race distinction which is in perfect correspondence with a known ethnological law.

As to the average weight of the new-born, I may repeat what has been published elsewhere. At my request Dr. Phillips found, from examination of the Philadelphia Hospital records of white children born there, that this weight was seven pounds four and eight-tenths of an ounce. The number from which this result was obtained was one thousand—five hundred males, and five hundred females. The average weight of the males was seven pounds and seven and nine-tenths of an ounce; while that of the females was seven pounds one ounce and seven-tenths.

The average duration of labor in the black women was very nearly fifteen hours, while in the white it was thirteen hours and twenty-five minutes—showing a difference in favor of the latter of more than an hour and a half,

*Read before the Philadelphia County Med. Society, May 28, 1884.

*The general relation between male and female births is 100 to 106. Illegitimacy slightly lessens this proportion, that is, increases the number of females born; and this is a factor adding to the number of female births at the Philadelphia Hospital, for illegitimate births are there the more numerous, but still it is not sufficiently potent to entirely reverse the law. This abnormal disparity between male and female births is not a mere accident of the three months, for, taking all the births of 1882 and 1883, and adding those of the first quarter of 1884, I find the number is 371, and of these 173 were males, and 198 females. It would be interesting to examine the hospital record for a long series of years, and ascertain if this disparity is the same; and this it is my intention to do.

While referring to the normal relation between male and female births, and the effect of illegitimacy upon it, I may mention the curious contradictions of these laws given by the statistics of Roumania: These show that the proportion of female to male births is 100 to 116, and, further, this proportion is not changed by illegitimacy.

†The difference in the weights of white male and female children is greater than it should be from these facts: first, a larger number of female children; second, in two cases of premature labor and in that of twins the children were females, and their weights being small, of course reduced the average.

that is that labor is shorter in the white than in the black women. This result is an unexpected one; nevertheless here again the number of cases is too small to justify a positive conclusion. The duration of labor in white primiparæ was fourteen hours nine minutes; in black, nearly eighteen hours; in white multiparæ, twelve hours forty-two minutes; in black, ten hours sixteen minutes. The duration of the third stage of labor was in the whites twenty-one minutes, and in the colored thirty-three minutes.

And here let me, for the time at least, lay aside these statistics to consider the conduct of the third stage of labor. The subject invites consideration in this paper by the following facts: One of the colored women failing to expel the placenta within an hour after the birth of her child, the gentleman having charge of the case introduced his hand into the uterus and removed the after-birth by piece-meal, or at least the greater portion of it. That patient had septicemia, and infected each of her neighbors; the colored obstetric ward at this time was terribly crowded, the beds so close together that a patient could almost roll from her own bed into the next one.

Shortly after this I was called to a woman in one of the white obstetric wards, who had been delivered of her child three hours before, but the placenta was retained. The patient's pulse was good; there was no hemorrhage, nothing but the simple fact of delay in the third stage of labor. A little friction of the uterus, and compression of its fundus through the abdominal wall, caused the expulsion of the placenta in a few minutes. There was no fragment of the after-birth or of the membranes retained; the genital organs of the patient were not touched either by the *interne* or by myself in this delivery, nevertheless she had septicemia. Finally, a third patient had the placenta retained for nearly five hours, and then it was expelled. She had septicemia. These three patients recovered.

In studying the phenomena of placental delivery we find there are three stages, viz.: First, the separation of the placenta from the uterus; second, its extrusion from the uterine cavity after its conversion into a foreign body by its detachment; and third, its expulsion from the vagina. Delay may occur in any one of these stages, that in the last, of course, being the most easily remedied. The separation of the placenta from the uterus is made by uterine retraction, and probably instead of being marginal in some cases, central in others, is usually general.

A practical question is here presented: Is this separation facilitated by ligating the placental end of the cord; in other words, ought the obstetrician to use two ligatures, or one? The advocates of two ligatures claim that in this case the placenta, being larger, fuller, firmer, cannot so well follow the retraction of the uterus as it can if thin and flexible from the loss of blood, and therefore in the former case is more certainly and completely detached. This is doubted by some, denied by others; nevertheless it seems rational. But admitting its truth, it is certain that if a single ligature be used the placenta is smaller, and hence can pass through a smaller uterine orifice; this practice, no matter what its effect upon the first, facilitates the second stage of placental delivery.

After uterine retraction has separated the placenta, uterine contractions expel it into the vagina, while the abdominal muscles, aided, it may be, in some slight measure by the contractions of the vagina, cause its final expulsion.

In the spontaneous discharge of the placenta from the uterus, it does not seem yet settled whether the placenta usually presents the fœtal surface or the margin at the os uteri. The doctrine of Matthews Duncan has probably for the last few years been most generally adopted by British and American obstetricians; my own belief is that it is correct—at least in some thirty cases of delivery, taking the method advised by Dr. Duncan to test the presentation, I found in the majority that the placenta descended through the os with its margin presenting. French obstetricians have not accepted Duncan's views; and indeed the recent observations of Pinard and others seem to prove that the placenta presents by its fœtal surface.

Now a practical lesson from this study of the mechanism of placental delivery is, that adopting the view of Duncan, traction upon the cord—a traction which of course is never to be made when the placenta is still attached to the uterus—is mischievous, for it interferes with the normal presentation; but if the normal presentation be that of the fœtal surface, such traction facilitates the second stage of delivery.

The time required for the spontaneous delivery of the placenta, as observed by Kabierske in one hundred cases in the Strasburg Maternity, varied from thirty minutes to twelve hours, as is shown by the following table:

24 times,	. .	30 minutes.
20 times,	. .	1 hour.
25 times,	. .	2 hours.
11 times,	. .	3 hours.
9 times,	. .	4 hours.
5 times,	. .	5 hours.
3 times,	. .	6 hours.
2 times,	. .	8 hours.
1 time,	. .	12 hours.

Few practitioners are willing to trust nature

this far, but guard aginst delay in the delivery of the placenta by following the uterus down with the hand upon the patient's abdomen, according to the expression and the method of the Dublin school, as the fœtus is expelled, thus keeping the hand upon the uterus at least as a sentinel to warn of uterine relaxation, and, better still, as a stimulus to, and a reinforcement of, uterine retraction. A general observance of this practice reduces to a minimum cases of post-partum hemorrhage, of delay in the discharge of the placenta, and of hour-glass contractian.

And now, coming to a practical point of more direct interference with the third stage of labor, what circumstances demand it, and how is it to be made?

I believe the teaching of the Philadelphia school has been favorable to early interference—at least such delay as shown by the Strasburg statistics would not have been allowed by her great teachers. Dr. Hodge advised moderate traction upon the cord at the end of half an hour, or of an hour; and Dr. Meigs stated that he never waited for the spontaneous extrusion of the placenta more than an hour and a half, for he always supposed that if it would not take place in one hour, there was little prospect for its taking place in twenty-four hours. Now, with all reverence for the names of these great men, and with, I trust, due personal humility, it seems to me their teaching was wrong. Even moderate traction upon the cord, if the placenta be attached, is liable to do harm, and traction is not necessary to find out whether it is detached. The statistics quoted prove that one cannot make a time-table for nature in regard of placental delivery—she may effect that delivery long after Dr. Meigs' hour has passed.

As long as the placenta is wholly attached, hemorrhage is impossible; the placenta is still a living structure, and one with the uterus; to tear it loose, to directly detach it from the uterus, opens the way for perilous hemorrhage. Not only this, but such artificial detachment is usually incomplete, is liable to injure the uterine tissue, and the operator's hand may be the bearer of septic germs, or these may pass in with the air admitted during the manipulation, and find a congenial soil for their development in fragments of placenta, or blood-clots that are retained in the uterus. Therefore, unless hemorrhage demands immediate interference, the obstetrician refrains from passing his hand into the uterine cavity for the removal of an attached placenta; a completely adherent placenta is not so dangerous as the intra-uterine use of the hand for its detachment. I believe, then, that armed expectation is wise in the latter case, only endeavoring, by suitable compression of the uterus with the hand acting through the abdominal wall, to determine or assist that retraction of the organ which is nature's method of separating the placenta. After the detachment of the placenta—a fact which is best learned by feeling a part of the organ with the finger passed into the mouth of the womb—we may, by friction and compression of the uterus, if needed, evoke uterine contractions which will cause its expulsion. Those who believe that the placenta presents its fœtal surface at the os uteri, urge the value of moderate and continuous traction upon the cord, thus assisting the moulding of the mass to the orifice through which it is to come. This conservative view as to the management of so-called retained placenta has been strongly presented by Siredey in his recent work upon puerperal diseases. The common expression, retention of the placenta, means very different conditions, each requiring its appropriate treatment.

Passing now to another topic, the relation of acute infectious diseases to the pregnant, or to the puerperal state. The history of the three months furnishes two cases of measles in pregnancy, and one of scarlet fever in puerperality. A report of the latter will appear in the next number of the *American Journal of the Medical Sciences*, and therefore is not presented here. In both the cases of measles the eruption did not appear until after labor, but in each the interval was so short that the disease was present in pregnancy. In one case the disease had no evident effect upon pregnancy, and the puerperal period was normal. But in the other I believe premature labor was caused by the disease, for though no accurate or definite information could be had from the mother as to when the pregnancy began—she was half idiotic—the child was small and feeble, and imperfectly developed. Abortion or premature labor is the result in the majority of cases when measles occurs in pregnancy. The second patient had septicæmia, but even with this complication, and though quite ill, made a perfect recovery.

Puerperal temperature is a subject of importance to which brief reference will now be made. I have here a temperature chart made by Drs. Phillips and Randall, from the charts of twelve women in whom puerperal convalescence was undisturbed; the chart includes eight days of the puerperal period. The highest temperature was on the fifth day, and then it was only 98°⅘.

Temperature record from two daily averages of twelve cases of normal recovery from labor. The first temperature is that of a woman delivered within the preceding twenty-four hours.

MORNING,

98.4 98.4 98.2 98.2 98.2 98.4 98.0 98.2

EVENING,

98.8 98.8 98.8 98.4 98.9 98.8 98.4 98.4

There were opportunities for observing the influence of apparently trifling causes in producing marked elevations of temperature. Thus one patient, whose condition was normal, insisted upon getting up the fifth day and dressing herself; she did so notwithstanding the remonstrance of the nurse, and her temperature rose to a little above 100°. Either from feeling badly, or possibly from the moral influence of the thermometer, she was willing to return to her bed. Another patient, doing well apparently, save that her temperature was 100°, got up the fourth day; her temperature rose to 103°; she returned to bed; her temperature in a few hours was only 100°, and in two days was normal. In another case an irritant cathartic, or that which proved to be such, the bitartrate of potassium, was given the fifth day, and for a short time the patient's temperature was nearly 105°, but the next day it was normal. On the other hand, the gravity of a case may be much greater than the temperature indicates. Thus in a patient with fatal septicemia the temperature during the first five days only once rose as high as 101°—a part of the time was only 99°—on the sixth day rose to 102⅘°, on the seventh fell to 101°, and then on the morning of the eighth was 103⅕°; she died that day. In the abstract of a paper by Dr. Angus Macdonald, (*British Medical Journal*, May 10), the statement is made that in some of the worst and most rapidly fatal cases of septicemia, the temperature never rose over 101°, if so high. The explanation given was that the vital centres were attacked with such a quantity of the poison that death occurred before the tissue-changes ending in heat took place. Dr. Macdonald further referred to the important difference in the course of temperature in lymphatic and in phlebitic septicemia; there being in the former a single rigor with sudden and continuous high temperature, and in the latter a series of successive rigors followed by corresponding depressions. Siredey has previously remarked that a temperature chart of a patient having puerperal septicemia, will readily show whether the disease is the lymphatic or the phlebitic form. When Osiander, at the beginning of the present century, and others since him, described remittent puerperal fever, doubtless they had under observation cases of phlebitic septicemia. I am sure these sudden and marked declines of temperature have led practitioners into false diagnoses, especially since attention was re-directed by two distinguished American physicians to the occurrence of malarial fever in child-bed; we would much rather believe a patient had this disorder than septicemia, and such desire may assist the diagnostic error, an error I know that I have committed, and I have more than once witnessed its commission.*

The occurrence of a chill at the onset of septicemia is by no means a constant phenomenon. While Dr. Macdonald refers to a chill marking the advent of lymphangitis, Siredey regards it as always present in phlebitis, usual but not invariable in lymphangitis; it is multiple in the former, single in the latter. The cases observed at the hospital show that a chill was not coustant in septicemia, even in a fatal form of the disease. While we may in some cases, by the great variations in temperature, be able to diagnosticate between septicemic phlebitis and lymphangitis, there are decided oscillations in temperature observed in the latter, though much less than in the former; and beside, some cases present the combined forms, lymphatics and veins alike affected. There is herewith presented the temperature chart of a patient who suffered with what I at the time believed to be lymphatic septicemia, and yet the reading of the chart might justify the conclusion that the disease was phlebitic, though early in its manifestation.

Bertha Lambert, aged 25; puerperal septicemia:

Date.	Pulse. Morn'g.	Even'g.	Day of Disease.	Temperature. Morn'g.	Even'g.	
5	—	88	1	——-	99	
6	64	84	2	98.5	98.7	
7	64	112	3	98.6	103 at 3 P. M.	Chill
8	96	84	4	100.0	106. at 7 P. M.†	Chill
9	100	85	5	100.0	100.5	
10	102	114	6	101.7	101.4	
11	96	110	7	99.8	100.8	
12	100	100	8	102.4	102.4	
13	96	96	9	102.8	101.8	
14	98	102	10	98.6	100.5	
15	80	96	11	97.7	99.4	
16	84	98	12	99.4	99.8	
17	84	85	13	98.0	99.0	
18	88	77	14	97.8	98.7	
19	74	72	15	98.0	98.2	
20	80	86	16	99.6	100.0	
21	73	78	17	100.0	100.4	
22	72	85	18	98 4	99.0 ‡	
23	76	68	19	98.3	98·8	
24	72	97	20	98.4	98.9	
25	82	87	21	99.5	99 2	

*If any one should doubt the difficulty sometimes presented in diagnosing between septicemia and malaria in child-bed, he may be referred to a lecture delivered by Prof. Luigi Mangiagalli upon malaria in its relation with the puerperal state, *Annali di Ostetricia, Ginecologia e Pediatria*, 1883. In this lecture Mangiagalli remarks that in the puerperium, the diagnosis between septicemia and malarial infection is not always easy, that the difficulty may be most grave—almost insuperable.

†Pulse before chill, temperature afterward.

‡Child died of pneumonia.

Looking at it one sees that the temperature was normal until the morning of the third day, when the first chill occurred, and at that time it rose to 103°; the next day a chill in the evening, and the mercury marked 106°, but fell the next morning to 100°; the next most marked difference was observed on the ninth and tenth days—the evening of the former it was 101⅘°, the next morning 98⅗. I show a second temperature chart of a patient whose temperature was under 100° until the fourth day; was 104⅖ the seventh day, dropping to 99⅗ the eighth day, reached 105° on the eleventh day; the twelfth only 101⅖; and who had in the course of her illness at least two chills.

Kate Fleming, aged 22, puerperal septicemia:

Date.	Pulse. Morn'g.	Even'g.	Day of Disease.	Temperature. Morn'g.	Even'g.
10	88	88	2	98.0	98.0
11	90	92	3	98.9	98.0
12	82	84	4	98.2	96.6
13	108	104	5	100.6	102.2
14	96	112	6	101.5	103.0
15	124	106	7	104.4	102.8
16	81	90	8	99.6	103.3
17	80	88	9	100.4	101.8
18	74	88	10	99.2	101.2
19	116	120	11	103.0	105.0
20	104	98	12	101.4	101.3
21	90	106	13	103.0	101.3
22	94	112	14	100.3	104.0
23	98	98	15	100.8	102.0
24	84	82	16	99.0	98.8
25	93	87	17	97.2	98.8
26	79	72	18	98.0	98.2
27	67	70	19	97.8	97.4
28	63	78	20	97.2	98.2
29	80	62	21	98.0	98.5
1	64	72	22	97.6	98.4
2	66	92	23	97.8	99.3
3	80	—	24	97.0	—

The cases of septicæmia were too few and the discrimination between lymphangitis and phlebitis not always made, to permit me to give a positive opinion; nevertheless, it seems to me probable that in lymphangitis the oscillations of temperature are always such that the thermometer marks a higher degree in the evening; while in phlebitis, the highest temperature occurs quite as often in the morning as in the evening.

Returning to the subject of normal temperature in puerperality, it will be seen from the chart presented that the temperature of the third was no higher than that of the first or of the second day. In looking at a temperature chart given by Dr. Macdonald (Edinburgh Obstetrical Transactions, vol. vi), taken as the result of observing the temperature of thirty women, I find the highest temperature the third, fourth and seventh days; the thermometer registered 99½° the third day, and 99⅕° the fourth and seventh days.

Tarnier remarks that momentary elevations of temperature do not generally involve an unfavorable prognosis; but when they are progressive and continuous, especially when the thermometer placed in the axilla goes above 100⅘° some complication is to be feared.

One of the subjects delivered at the hospital had a slightly subnormoral temperature. She was a girl, eighteen years of age, who, three hours after a normal labor, had a temperature of 99°; this fell so that on the third day it was only 98°, and so continued for a week. During a part of this time her pulse was 56, and even only 48.

The presence of albumen in the urine of the pregnant woman has often, even generally, engaged the attention of obstetricians; but comparatively little concern is usually shown as to its presence during labor, or in the puerperal state. Possibly, it may be quite as important to examine the urine of the lying-in as of the pregnant woman, especially if she has had even slight septicæmia.

But first, how frequent is albuminuria in pregnancy? In seventy-two pregnant women albuminuria was found in five. It will be observed that this proportion is very much less than that given by Charpentier,* quoting Dumas, who, combining the statistics of several observers, makes the proportion one to five or six. It seems to me, both from hospital statistics and from observation in private practice this proportion exaggerates the frequency of the accident.

By the albuminuria of labor is understood not only the disorder as occurring during labor, but also that of the two or three days immediately preceding. This is very much more frequent than the albuminuria of pregnancy, but the cases examined with reference to this point were too few to determine the proportion.

Seven of the seventy-two woman had albuminuria after labor; I think the number was much greater, but some of the women suffering with septicæmia did not have the urine examined until after convalescence, and the results of examinations made in others were not properly kept, or at least were not placed in my hands.

In three of the seven mentioned the albuminuria was slight and transient. In four women convalescing from septicæmia, the urine was found to be albuminous one month after delivery. Two had pus, blood and hyaline casts in the urine; in a third, no pus, but blood and casts were present in the urine; as

*Traité des Accouchements.

to the urine of the fourth, the microscopic appearances were not noted. In regard to two of these patients, I know that the catheter was first used after their being brought from the "fever" to the "convalescent ward," and therefore the explanation which Olshausen has suggested of the renal disorder fails in these cases—catheterism had nothing to do with its causation. In explanation of these cases, it is probably better to accept the teaching of Siredey, who regards puerperal nephritis as a constant complication of uterine lymphangitis or phlebits.

Women may apparently, but not really, recover after pregnancy and labor; especially if there has been septicæmia, is there a liability of renal disorder becoming chronic, and it is only by actual examination of the urine that the integrity of the kidneys can be determined.

Mauriceau compares the pregnant woman just before labor to a ship that has been nine months tossing upon a rough sea, and urges the importance of not letting the ship sink as she enters the port of child-bed. It is not less the duty of the obstetrician to know that the ship has not suffered such damage on the ocean or in the port, that she is unfit, without important repairs, to run the risk of another voyage.

Sugar in the urine of pregnant and of nursing women was first shown to occur by Blot in 1856. Differences of opinion hold as to the constancy of its presence in the conditions stated, as to its source and as to its character. Macdonald found it in each of thirty-five cases whose urine was examined and therefore regards it as present in all cases at some time or other of the puerperium. But neither Kleinwächter nor Spiegelberg refers to it as always present. In the examinations made daily of the urine of fifty women at the hospital (these examinations began a few days before and continued seven days after labor), four women had sugar in the urine before labor, and six after labor, one of the six being also one of the four. In this woman the sugar was constantly and largely present up to eight weeks after delivery; she had remarkably well-developed mammary glands, and a most abundant secretion of milk. In this case Blot's suggested test for a good nurse—to wit., the quantity of sugar contained in the urine—would have proved true, so far as abundance of milk was concerned.

It has been shown that abrupt suppression of nursing causes the appearance of sugar in the urine; thus it is commonly observed in mammary abscess.

The fact that removal of the mammary glands in an inferior animal recently delivered, causes disappearance of sugar from the urine, proves that it is incorrect to call the cases where sugar is found in pregnancy or child-bed, cases of glycosuria, but rather of lactosuria, unless we attach only the literal meaning to the first word in the compound glycosuria. Spiegelberg refers to the condition as an absorption diabetes; and this seems the opinion of most authorities. Tarnier, however, regards as very plausible the hypothesis that the sugar eliminated by the kidneys was sugar made very probably by the liver in view of the lacteal secretion, and which was not utilized in consequence of the momentary suppression of this function; further, he thinks new researches necessary, in addition to those of Hofmeister and others to determine the question as to whether this sugar is glucose or lactose.

Whenever there is an exact correspondence between the milk supply and the demand, the former not being in excess of the latter, it is probable sugar will not be found iu the urine; I think, therefore, that the experience of Macdonald—showing saccharine urine in all cases of lying-in women—is not the law.

An interesting case of secondary puerperal hemorrhage occurred—interesting as to its etiology, and instructive as to the means by which it was finally arrested.

The following is the history as given by Dr. Voorhees, the *interne* who had charge of the patient:—

A. A., German, single, primipara; varicose condition of veins of lower limbs, this condition disappearing after labor. Labor at full term, March 5, 1884, lasting a little over twelve hours. Her condition was perfectly satisfactory up to the evening of the eleventh day after confinement; on that day she was transferred to the convalescent ward, and then saw the out-door agent as to keeping the father of her child in prison for refusing support. She was greatly distressed by this interview, and at 4.30 the next morning hemorrhage began. Digital examination showed that the blood came from the uterus; the os was high up, flabby and full of clots; the uterus was as large as if delivery had just occurred, and was soft and relaxed. Ergot was given; the child applied to the breast; the uterus was emptied of its clots, and friction used to stimulate contraction, but the bleeding still continued. Ice was then used to the abdomen, and in the vagina; the bleeding was not stopped. Hot water was then freely thrown into the uterus and the result was prompt and satisfactory. The patient made a good recovery. Although the uterine discharges were carefully examined, at no time was there any organized material found, nothing in the least indicating that this hemorrhage was caused, for example, by the retention of a placental fragment.

Those who have read Dr. Fordyce Barker's admirable lectures upon puerperal diseases, will remember the graphic description of a case of secondary hemorrhage the second day of lying-in, caused by an emotional cause, and in what perilous condition the poor woman was for some days. So too in the hospital case we have an example of hemorrhage from a psychical cause. Believe or doubt as we may, say what we will, there are at times in medical practice just such sudden, startling and strong proclamations of something more than flesh and blood in this human nature, telling us that the coarse material may be prostrated through the finer spiritual, the psychical assert its power over the physical.

Further, as to this case, the great value of hot-water injections for the arrest of uterine hemorrhage never had a more striking illustration.

The final subject presented to you is that of uterine rupture. In reflecting upon the history of my three months' service, no event occurred in my duties to these unfortunate women—women often worthy of the profoundest pity as the victims of misfortune, and of man's perfidy—which causes me greater sorrow in silence or in recital than a case where the uterus was ruptured in consequence of a shoulder presentation, a case which ended in death the eighth day after delivery. Yet I would fail in duty to my profession that has been so good, so generous to me, if I did not make the case fully known. The patient was a well-formed healthy multipara; she had been in labor nearly twelve hours when I first saw her, the left shoulder presenting. Ether was immediately given until she was thoroughly under its anesthetic effect; and then, without violence, nay, with great ease, I passed two fingers behind the right knee, brought the foot down, and turning and delivery were effected in a few minutes; the placenta followed almost immediately; the child, quite a large one, was dead. The patient came out from the anesthesia satisfactorily; her pulse was good; there was no complaint, no shock, no great hemorrhage. Yet that woman had a ruptured womb, the tear beginning at the os uteri on the right side, involving the cervix and the lower part of the body of the uterus, this condition being made known by the post-mortem. If it be thought I ought to have known this accident at the time of delivery, I can only say that like ignorance happened to Dubois, to Hervieux, to Tarnier, and others—the first revelation of the uterine rent being made at the post-mortem; these silent tears of the womb are, as Hervieux has suggested, probably more frequent than generally thought. No, my self-reproach is not in this, but in not having made myself, or by another, an examination during pregnancy, so that the abnormal presentation could have been corrected, if not then, at least early in labor. But let this pass. The great practical lesson to be drawn from the accident is not only the importance of an early rectification of a malpresentation, but also an appreciation of the danger of rupture of the uterus, and how this accident occurs. The drawing now shown gives the position occupied by the child, and also and especially gives the change in form and thickness of the two cavities of the uterus, which, as so admirably described by Bandl, are formed when nature is unable to overcome the obstacle to labor found in such case. The one cavity is formed by the body of the uterus, and its walls become thicker and stronger; the other, by the cervix, and its walls grow thinner—become indeed so attenuated and weak that a very slight additional strain causes a tear at some point; that strain may come from a uterine contraction, or solely from the introduction of the finger: and thus peril from action, peril from delay must be before the obstetrician's mind when called to a case of neglected shoulder presentation.

Of course had I seen this patient an hour or two earlier, the event might have been different. The pressure of the presenting part had been so severe that a slough of the vesico-vaginal wall occurred, and the patient, had she recovered, would have required an operation for the resulting urinary fistula; I have thought that possibly the uterine rent was in part the result of a slough also; but be this as it may, there was not the slightest indication given at the post-mortem that any hemorrhage in the abdominal cavity had taken place.

One other topic I had designed presenting, the prophylactic treatment of puerperal septicemia, but my paper has already occupied enough, possibly too much, of your time.

1902 Chestnut St., Philadelphia.

THE CONDITION OF THE URINE IN SULPHURIC ACID POISONING.—Hoppe Seyler describes (*Zeitschrift fuer Medicin*, 1883. Bd. VI., Hft. 5, pp. 478 und 479) the occurrence of an acetone-producing substance in the urine in a case of poisoning with sulphuric acid. The scanty urine, free from albumen, which was passed by a young woman on the sixth day after she had swallowed sulphuric acid, smelt of acetone, and on being tested gave the reactions of acetone. A few days later, when the vomiting and anorexia ceased and she was again able to take nourishment, the acetone disappeared.—*Centralblatt fuer Klinische Medicin*, January 19th, 1884.

Hospital Reports.

UNIVERSITY HOSPITAL.

SERVICE OF DR. RANDOLPH WINSLOW.

Amongst quite a large number of surgical cases treated during May at this Hospital, the service has been especially rich in amputations and fractures of the femur, a brief narration of which may not be without interest.

AMPUTATIONS OF LOWER EXTREMITY.

Case I. *Syme's Amputation.*—C. S., aged 40, an engineer engaged in excavating upon the B. and O. new line, was unfortunate enough to get his foot caught in the machinery of a steam shovel, with the result of crushing the anterior portion to such an extent that amputation was urgently demanded.

May 3rd a Pirogoff's amputation was performed, the effort being made to save as much of his foot as possible. The stump was dressed with iodoform gauze and oakum, free drainage being also established. Traumatic fever was rather high, but on the 4th day the temperature had fallen to 99°, and subsequently the course of the case was nearly afebrile.

Owing to a limited sloughing of the anterior portion of heel flap, it was judged to be best to enucleate the portion of calcis which remained, and to convert the operation into a Syme's amputation. This was easily accomplished by removing a thin slice of the tibia and fibula, and freshing the edges of the incisions.

The patient made a rapid recovery and was allowed to go around upon crutches with his wound almost healed in two weeks.

Case II. *Reamputation of Thigh.*—E. S. V., aged 28 years, a painter by trade, fell and sustained an injury to his knee. He was treated at home for a long time without much benefit, and finally entered the University Hospital, during the service of Prof. Michael. In January an amputation in the lower third of the thigh was performed by Dr. Michael, and notwithstanding that the flaps were ample, the constant muscular spasm prevented union from taking place, and the soft parts retracted, leaving three inches of the bone exposed.

The patient's health was very much run down, and it was thought best to give him time to recuperate before undertaking another operation.

On May 9th it was determined to reamputate, under strict antiseptic precautions. The operation was proceeded with as rapidly as possible, the femur being severed about the junction of the upper and middle thirds. Iodoform dressings were used.

The prostration following the operation was great, and the patient required constant attention and the free use of whiskey to enable him to rally. The next day after operation the temperature reached 102⅘°, and the pulse 150. On the fourth day the temperature fell to 99°, and pulse to 116.

On May 20th, eleven days after operation, the temperature became normal; May 28th, temperature 98⅘°, pulse 88, wound nearly healed and the patient gaining in strength every day.

Case III. *Synchronous Amputation of both Legs.*—A. W., aged 10 years, was admitted with gangrene of both feet, the result of exposure. When admitted her condition was so unfavorable that it was not thought to be proper to undertake any operation. The feet therefore gradually sloughed off, leaving large suppurating surfaces which caused much febrile reaction.

On May 14th amputation of both legs in the lower third was performed, care being taken to prevent loss of blood by using Esmarch bandage. The parts before, during and after the operation were thoroughly irrigated with carbolized solution 1-40, and the iodoform dressing was employed. Her temperature fell immediately and continued almost afebrile, except when interrupted by paroxysms of malaria. The dressings were not changed for six days, and it was found that almost no suppuration had occurred. The second change of dressing was made May 27th, and the wounds were found nearly healed. Temperature has been normal some days. She is able to sit up in a chair much of her time, has a good appetite, and is gaining strength rapidly.

In this case it was feared that the shock of the operation might prove fatal, but no marked depression ensued, and the temperature from being very irregular fell at once to 99° in the morning and 100° in the evening, and became normal in a few days. She suffered from well marked malarial fever, which was controlled by quinine.

FRACTURES OF THE FEMUR.

Within a few days of each other, four cases of fracture of the femur and one of fracture of the pelvis were admitted. There is nothing noteworthy to record in regard to these cases. They were all treated by the longsplint, and good results obtained. One of these cases had fracture of both femurs, the right being simple, the left compound. The compound fracture was treated by occluding the wound and converting it into a simple break.

STRICTURES OF URETHRA.

Case I. *External Perineal Urethrotomy, Without a Guide.*—A. U., native of Virginia, anæmic and malarial in appearance, had gonorrhœa 5 years ago. His stream gradually became smaller, and three years ago retention of urine suddenly occurred, which was relieved by catheterization. Since this time he has never been able to pass a full stream—the urine dribbling away. Admitted May 21st. Upon passing a sound, the urethra was found to be strictured from near the meatus to bulbo-membranous portion. A No. 12 sound could be passed as far as the bulb, but beyond that point not even a filiform guide could be made to pass. The urethra and perineum were much indurated.

Upon two subsequent occasions the attempt to enter the bladder failed, once when under ether.

May 26, a sound was passed to front surface of the stricture, and the urethra divided. By cutting in the middle line, the mass of cicatricial tissue was incised, and finally, a probe was insinuated, and the operation was rapidly finished. The anterior stricture was cut with Otis' dilating urethrotome, and No. 17 sound passed from meatus to bladder. The subsequent history of this case has been very satisfactory, with the exception of an attack of remittent fever, evidently the remains of an old malaria contracted previous to entrance.

June 12. The perineal wound is almost closed, and a No. 16 sound passes without obstruction into the bladder.

Case II. *Stricture of Urethra.*—J. R. had gonorrhœa 14 years ago, followed by gleet, the discharge from which has never ceased. His stream of urine began to diminish about 2 years after the beginning of the gonorrhœa. In five years had retention of urine, which required catherization. He states that he was treated by Dr. Kinloch, of Charleston, who employed gradual dilation, and in 1879 submitted to urethrotomy at the hands of Dr. Bevan, of Baltimore. Subsequently he learned to pass a sound upon himself, and continued to do so until he lost the instrument.

May 30. A stricture of small calibre is found in the membranous urethra, which admitted a No. 4 soft bougie. The dilatation was rapidly effected by soft and steel sounds until No. 16 passed through the stricture, which, in effect, amounted to divulsion.

Two days later a chill occurred, but whether due to instrumentation or to malaria is not very apparent. No instrument was passed for 6 days, when No. 16 conical sound slid easily into the bladder.

A point of interest in this case is the fact that recontraction of the stricture had occurred notwithstanding the internal urethrotomy, which is contrary to the claims made by Otis and his disciples in regard to this method of treatment.

Society Reports.

CLINICAL SOCIETY OF MARYLAND.

STATED MEETING HELD FEB. 1ST, 1884.

(*Specially reported for the Maryland Medical Journal.*)

The President, DR. J. EDWIN MICHAEL, in the Chair. *Dr. George R. Graham*, 123 Conway Street, was elected to membership.

MYELOID SARCOMA FROM ANAL REGION OF CHILD.—*Dr. Coskery* exhibited a tumor obtained post-mortem from a child aged 16½ months. According to the history it was congenital; at the age of 6 months erysipelas occurred at the site of the tumor; death occurred eight weeks ago. The tumor involved the vulva and anus and was thirty-four inches in circumference. It consisted of many cysts containing a jelly-like fluid and presented an appearance like decolorized sponge. There was never any pain in it, not even on handling or incising it. Microscopic examination by Dr. Keirle showed it to be a "myeloid sarcoma." It contained spindle-cells, and multinucleated cells, also some cartilage.

Dr. Bermann said that as it had taken so long to develope it was almost certainly not myeloid. He would pronounce it a myxosarcoma, even without microscopic examination.

Dr. I. E. Atkinson considered it as undoubtedly a giant cell sarcoma.

NOTES OF A CASE IN WHICH SARCOMA AND CONSTITUTIONAL SYPHILIS DEVELOPED SIMULTANEOUSLY.—This was the title of a paper read by *Dr. I. E. Atkinson* (which was published in full in the number of this journal for Feb. 16).

SPECIMEN OF FRACTURE OF PATELLA.—*Dr. R. Winslow.* The specimen was obtained post-mortem and showed a wide separation of the fragments which were three inches apart. Between them in the fibrous tissue there were five or six new pieces of true bone. The leg was as well developed as on the other side, showing that there must have been good use of the limb.

MICROCOCCUS FROM SECRETION OF POST-NASAL CATARRH.—*Dr. Bermann* announced that in all cases of post-nasal catarrh he had been able to find in the hard secretion dislodged with difficulty, a micrococcus similar to the diplococcus gonorrhœæ. It occurs in immense numbers. It exhibits a propensity like the gonococcus to stick together, and hence the name diplococcus. Dr. B. explained their presence by saying that they were inhaled, and finding a congenial nidus they multiply.

Dr. Morison had found the same organisms in the secretion of pemphigus and in smallpox pustules.

SPECIMENS FROM A CASE OF PELVIC PERITONITIS.—*Dr. Chambers* exhibited the uterus and appendages from a lady æt. 17, in good health till January 3rd. She died with symptoms of pelvic peritonitis. On post-mortem the hymen was intact; pus oozed from the ends of the fimbriated tubes. The symptoms began in careless exposure during menstruation.

Dr. Chambers also spoke of a case of pelvic peritonitis probably septic in character in a lady two and a half to three months gone, who has suffered a miscarriage.

MALFORMATIONS IN THE FEMALE SEXUAL ORGANS CAUSED BY ARREST OF DEVELOPMENT.—This formed the regular subject of discussion for the evening and was opened with a paper by *Dr. Browne.* The following were Dr. B.'s conclusions:

1. Nearly all the malformations of the female sexual organs previous to puberty result from arrest of development.

2. As the upper and lower portions of Muller's ducts develop independently of each other we may find the ovaries develop without the uterus and *vice versa.*

3. Perfect development of the external genital organs and the mammary glands does not preclude defective development of the vagina, uterus or ovaries.

4. Entire absence of the uterus or of the ovaries can only be determined by *post-mortem* examination or by laparotomy.

5. A patulous urethra is not the result of sexual intercourse through this organ but is caused by arrest of development.

6. In congenital atresia of the vagina, a patulous urethra is the rule; in acquired atresia it is the exception.

CORRECTION.—*Dr. J. T. Smith* desires a correction made in the report of his remarks made at the meeting of January 18th and published in the MD. MED. JOURN. of Februry 9th. "The point which he desired to impress was that in all cases either of abortion or delivery at the full term, the physician should ascertain if all the afterbirth has been delivered, and if he finds that any portion has been left behind it is his duty to secure its prompt removal; for he exposes his patient to many and serious dangers by allowing debris to remain in the uterus and *the fear of hemorrhage should not deter him from searching for the foreign substance.*"

PHILADELPHIA CLINICAL SOCIETY

STATED MEETING HELD MAY 23RD, 1884.

A PUERPERAL CASE WITH NUMEROUS COMPLICATIONS was reported by Dr. Mary Willets. Mrs. H., aged thirty, a primipara, after a normal delivery did well for twelve days. Then, after pain in the back and limbs and chilly sensations, she had a rise of temperature and was attacked with nausea and vomiting. The temperature continued high for two weeks. There was nothing to account for the elevated temperature except a laceration of the cervix uteri and some tenderness around this point. On the twenty-fifth day after delivery the patient complained of pain in her left leg. For more than a week there were pain and swelling both above and below the knee; the pain was greatly increased on pressure and on attempts at extension of the limb, and was in the course of the femoral vein, but careful examination failed to reveal anything abnormal. On the forty-third day, the patient having recovered sufficiently to go down stairs, there was a sudden attack of well-developed mania, the patient being violent at first, but subsequently merely loquacious. This continued two days, and then gave place to somnolence, which lasted five days, after which convalescence began.

Dr. E. E. Montgomery remarked that the case was unusual from the lateness at which the fever appeared. During his present term at the Philadelphia Hospital measures had been instituted to prevent the contact of septic matters with the parturient parts. A solution of corrosive sublimate, one to two thousand

parts, was used to sponge the parts with after the expulsion of the placenta, and cloths saturated with the solution were kept in place by absorbent cotton, oiled silk, and a tailed bandage. There had been but three cases of septicæmia during the present quarter.

Dr. Albert H. Smith said the local examination which the reader of the paper had very properly made solved the whole problem. Together with the symptoms, it showed the case to be one of pyæmic—not septicæmic—poisoning in a woman feeble and unable to resist the absorption of pus. Septicæmia could not arise after all open surfaces had become purulent. The examination was valuable, and he thought it would be better if more care was generally exercised in this direction.

Clinical Phenomena following the Puerperal State in Two Cases.—*Dr. Philip M. Schiedt* read a paper with this title. In the first case he was suddenly summoned to the bedside of a woman, aged about thirty-five, whom he found comatose, with the pupils undilated, the head drawn to the left side and flexed on the chest, a clammy sweat on the forehead, and the pulse imperceptible. The heart sounds were faintly detected, and the body and extremities were warm. Restoratives and artificial respiration were without avail, and the patient soon expired. The history of the case, subsequently ascertained from the family physician, was as follows: She had been delivered of a child after a natural labor two weeks previously, which was followed by a normal convalescence unaccompanied by fever or offensiveness of the lochial discharge. Her babe was healthy, and was regularly nursed by her, and she was doing so well that her physician had ceased his visits. On the morning of her death she felt unusually well, but about nine o'clock complained of some headache; vomited a little mucus; had a heavy chill; became unconscious, and was found in the condition described, which soon terminated in death. The notes were presented to the Society for the purpose of obtaining the opinions of its members as to the cause of death, the writer expressing a belief in its cardiac origin.

The other case was one of *Temporary Blindness Following Labor.* After a perfectly natural labor, three hours in duration, the mother failed to see her child when it was presented by the nurse. It was found that she was perfectly blind and irresponsive to the candle test. She remained fully conscious and in possession of her other senses. This continued three days, and was followed by gradual and complete recovery. During this time there was nothing otherwise abnormal in her condition. There was no œdema, therefore no examination of the urine was made. Previous to confinement she had been well able to attend to her duties.

Dr. L. Brewer Hall, in discussing the second case, said the most plausible explanation of such rapidly disappearing blindness was œdema, giving rise to choked disc. The cases reported had not been properly examined by an ophthalmologist, an omission frequently inexcusable. Some patients did not get well, and then we found an atrophy of the optic nerve. He had seen quite a large number of hysterical cases, at times uniocular, and such cases were easily diagosticated by feints and attempts to discover that the patients did see, while off their guard. Some one should always be called in in these cases to make an ophthalmoscopic examination.

Dr. Smith acknowledged the want of exact information, while the uraemic origin of such cases had been assumed.

Dr. G. Betton Massey denied the necessity of assuming that cases of hysterical blindness were mere malingering. Such patients at times might be perfectly honest as to the inability to see, the real condition being one of divorce between the volitional and the intellectual powers of the mind.

Tracheotomy in Croup and Diphtheria.—*Dr. Montgomery* read a paper based on an experience of twelve cases, in one of which, a case of diphtheria, the patient had recovered and was exhibited to the society Five of the operations were for diphtheria, the remainder for croup. In all, the operation was one of last resort, and the series taught the importance of early operation. Death occurred most frequently between the third and fourth days; one patient died in fifteen hours, a second in thirty-six hours, and another on the ninth day. In the successful case the cannula, owing to a laryngeal spasm, remained until the twenty-fourth day. In operating, he gave chloroform, and avoided hemorrhage by transfixing a fold of skin held by himself and an assistant, making an incision an inch long, completing the dissection to the trachea by the forceps and grooved director. After opening the trachea, care was observed to remove all membrane previous to inserting the cannula. The after-treatment consisted in attentions to the tube, keeping several thicknesses of tarleton wet with hot carbolized water over it. The temperature of the room was maintained at between 75° and 80° F., and stimulants and good food were given, together with quinine, tincture of chloride of iron and corrosive sublimate—the latter in frequently repeated doses. The attempt was made to dispense with the tube from the fifth to the eight day, but it should not be removed until respiration *per vias naturales* was fully

established. From these cases he drew the following conclusions: 1. That tracheotomy is justifiable in diphtheria hs well as in croup. 2. That it should be performed in croup when it is evident that drugs do not control the progress of the disease, particularly when there is depression of the lower end of the sternum during inspiration; in diphtheria with the advent of suffocative symptoms. 3. That in the performance of the operation the knife should only be used to incise the skin and trachea, the intervening tissue being torn by director and forceps. 4. That the subsequent use of proper drugs will promote a favorable result.

Dr. Collins recalled several flattering cases which in a few days showed crape on the door. He doubted the propriety of anæsthesia, but thought the operation justifiable if only as a means of procuring easy death.

Dr. W. H. Parish said this operation, which was one of the easiest in performance, should be resorted to whenever the symptoms were of such character as to show impending suffocation. To determine this required no little judgment, and he recalled a case of recovery without operation where both himself and Dr. Allis had agreed it should be performed. He treats diphtheria by large doses of chlorate of potassium and iron.

Dr. W. H. Warder, in discussing the treatment of diphtheria, thought the chlorate of potassium and tincture of chloride of iron most successful in ordinary cases. In more malignant ones he had resorted to calomel in five-grain doses. In a case which Dr. Pepper had seen with him the latter advised a continuance of this plan for forty-eight hours. At the end of this time forty grains had been taken a large and offensive evacuation followed, and the child recovered. He did not think such large doses usually necessary, however. Much of the calomel passed without other changes than oxidation.

G. Betton Massey, M. D.,
Recording Secretary.

OBSTETRICAL SOCIETY OF PHILADELPHIA.

SPECIAL MEETING HELD JUNE 6, 1884.

(Continued from page 541).

Dr. B. F. Baer exhibited a specimen of Submucous and Interstitial Uterine Fibroid and read the following report of the case: Mrs. G., æt. 51 years, married, four children. Her first child was born after she had reached her thirtieth year, and the last one when she was thirty-eight, thirteen years ago. Her labors were very severe. Several years ago she began to lose large quantities of blood with her catamenial periods and to suffer severely with labor-pains. This continued with increasing quantity and severity until the cause was removed. Two years ago she had so great a flooding that it was thought for weeks that she would succumb. She gradually recovered from the immediate effects of the hemorrhage but has been loosing flesh and strength ever since. Moreover, as she would recover a sufficient amount of strength to support it, a severe metrorrhagia would recur. Recently she had rarely been free from bleeding and a profuse non-fetid watery discharge.

At the request of my friend Dr. Fred. C. Seiberling, the family physician, I met him at the home of the patient, at New Tripoli, Lehigh Co., Penna., when I saw her for the first time.

She had a sallow, jaundiced and anæmic-looking surface, was somewhat emaciated, but did not have the characteristic cachectic appearance of carcinoma. Her pulse was 120 and not strong. As she was too weak and excited to permit of a thorough examination without it, ether was at once administered by Dr. J. W. Seiberling, when the following condition was revealed by physical exploration. The upper portion of the vagina was occupied and distended by the cervix uteri, which was stretched and expanded over a firm, rounded mass, which presented at the os; the latter was dilated to about the size of a silver dollar, and the body which presented resembled very much in size and shape the head of a seven months fœtus. Bimanual examination showed the uterus to be as large as at the end of the sixth month of gestation and rather symmetrically developed, but it was quite firm and resisting, if not hard. The sound could not be introduced for the following reason: On the right side the tumor was firmly attached to the cervical wall all the way to the external os, and on the left almost to the same extent, though here I was able to pass the sound and finger to a depth of about an inch. I confirmed Dr. Seiberling's diagnosis of submucous fibroid and thought from the size of the uterine globe as outlined by abdominal palpation that the tumor had also a deep interstitial attachment or *nidus*. I advised an attempt at enucleation of the growth as the only means of saving the life of the patient, and with the assistance of Drs. F. C. Seiberling and W. K. Kistler, I proceeded with the operation. I was at a loss at first to explain the close connection which the tumor had with the cervical walls, a connection so intimate that it seemed in part to grow from that organ, but the history of the growth of the tumor was against that idea; the patient had been under close observation at least four years, during most of which time the cervix was free from disease. There had been no evidence of abnormal growth in the cervix

until six months before the date of operation; about that time the tumor was detected at the internal os. I thought that the close connection with the cervical wall might have been due to adhesive inflammation, and acting on that theory I began my operation by trying to separate the adhesions but I soon found that I had made a mistake and that I was dissecting up the tissues of the cervical wall. I then concluded it must be the capsule of the tumor, which had been stripped off by the growth as it was made to advance towards the external os by contractions of the uterus, and this view was confirmed, for when I had removed the tumor the capsule hung as a curtain from the edge of the external os. After vainly endeavoring to deliver the tumor by traction, I cut directly into it with scissors, dividing the mass into two portions. I then introduced Thomas's spoon-saw into the cavity and with it and my fingers I tore the growth from its nest in the fundus and sides of the uterus, removing it piecemeal. Very little hemorrhage occurred during the operation, which had occupied fully an hour and a half. After trimming the ragged edges of the capsule from around the os, I injected the cavity with vinegar and packed it full of sponges saturated with the same excellent antiseptic and hemostatic. A gr. ss morphia suppository was placed in the rectum, the patient removed to her bed and surrounded by bottles of hot water. She rested nicely and in the evening ten grains of quinine were given. On the next day the sponges were removed, the cavity irrigated with carbolized water and repacked as before. Under the care of Dr. Seiberling the patient has recovered without an untoward symptom. The tumor probably weighed three pounds.

Reviews, Books and Pamphlets.

The Cinchona Barks: Pharmacognostically Considered by Friedrich A. Flueckiger, Ph. D., Prof. in the Univ. of Strasburg, Germany, etc. Translated with Notes by FREDERICK B. POWER, Ph. D., Professor of Pharmacy and Materia Medica, Univ. of Wisconsin. With Eight Lithographic Plates and One Wood Cut. P. Blakiston, Son & Co. Philadelphia: 1884. 8vo. Pp. 101.

This work deals with the botany, history, culture, collection, structure, chemistry, statistics, literature and manufacture of the alkaloids, of the cinchona barks, "the most important medicinal remedy known with reference to the sums of money which it sets in motion." The subject has grown in extent and importance to such a degree as now to form a distinct department of "Pharmacognosy, known as "Cinchonology."

Much doubt yet remains as to the number of the species of cinchonas, but the author thinks there are about twenty. Great importance is attached to the discovery in 1871 of the fact that the cinchona alkaloids are not confined to the genus cinchona but are found in at least one of the varieties of the false cinchonas not hitherto known to contain them. This suggests the probability that other varieties will be found to be equally rich in these valuable principles.

The author gives the following as the most important cinchonas: C. succirubra (found in South America, Ceylon, and the Nilagiris of Southern India), c. calasaya—the most valuable—(found in Bolivia and cultivated by the Dutch in Java), c. lancifolia (confined to New Granada), and c. officinalis (indigenous to Ecuador and Peru).

The cinchonas are confined to the Cordilleras, extending in a nearly vertical direction through 30° of latitude or 500 miles. An elevated moist tropical climate, with a temperature of from 54° to 68° F., is most favorable to their development.

The section relating to the culture of the cinchonas is especially interesting in its detail of the attempts—successful after many disappointments—to cultivate the cinchonas in other parts of the world than its natural habitat. Besides South America, we learn that they are now under successful cultivation in India, Java, Ceylon, Jamaica and perhaps other places, and they have been introduced into the market from these sources for a number of years past.

The section on the collection of the barks is exceedingly graphic and interesting. Barks were formerly classified by their color, then by their structure; but at the present day more importance must be attached to the determination of the amount of alkaloid than to their external appearance.

From the section on commercial statistics we learn that there are over 13,000,000 pounds of bark peeled annually and brought into market, the value of which is seven and a half million dollars. "Among all drugs opium alone attains to still larger sums, by far the smallest part of which, however, serves for medicinal purposes." An interesting fact appears from these statistics, viz.: that whilst the supply from South America is diminishing each year owing to the destructive methods employed there in gathering the bark, the quantity of the cultivated barks from India, Java, Ceylon and Jamaica is increasing at a prodigious rate.

The history of the bark is given in a vivid though sketchy manner, and the work concludes with a list of thirty-eight publications relating to the subject and eight illustrative plates of the different varieties of the bark.

Flückiger has evidently expended great labor and research in the preparation of this volume, and the number of authorities quoted shows that he has gotten his facts from first sources and not been content to take them at second-hand. His work must be regarded as an authority upon the subject of which it treats —it does not touch upon the physiology, therapeutics or pharmacy of cinchona barks.

It is beautifully gotten up, and reflects much credit upon its publishers. The translator has not succeeded, however, perfectly in divesting himself of the German idiom, which continually crops out throughout the book, marring to some extent its completeness. E. F. C.

Editorial.

THE GROSS PROFESSORSHIP OF PATHOLOGICAL ANATOMY.—At a recent meeting of a number of distinguished medical men of Philadelphia a movement was set on foot looking to the establishment of a Professorship of Pathological Anatomy in honor of the late Prof. S. D. Gross. The committee in charge of the memorial fund has issued the following appeal:

"American surgery has had no better exponent than Samuel D. Gross, none so honored abroad and at home by institutions of learning, none more revered by his associates and his pupils.

"His long and brilliant professional career deserves the perpetuation of his name in close association with medical tuition.

"In furtherance of this object the Alumni Association of Jefferson Medical College has inaugurated a movement to secure in some medical school the endowment of a memorial professorship, to be designated 'THE S. D. GROSS PROFESSORSHIP OF PATHOLOGICAL ANATOMY.'

"The profession at large, the personal friends of the late Professor Gross, and others interested in the advancement of medical education, are cordially invited to participate in this graceful recognition of conduct and services which have largely helped to establish the high standard of excellence to which surgery has attained throughout the United States, and to dignify the repute of American medicine."

The movement thus commenced by the Committee is one which should receive the hearty cooperation of the profession throughout this country. Prof. Gross has been designated as the "Nestor of American Surgery," by universal consent. Certain it is he did more to elevate the science and to spread the fame of American surgery than any man of his generation. At home and abroad his name has been honored and his genius has been recognized in the most distinguished manner. It is due his memory that his name should be associated in future with the work of medical tuition.

The work proposed is the most suitable form in which to express the high regard in which his memory is held by all mankind.

Those who wish to contribute to this fund should address Dr. R. J. Dunglison, lock-box 1274, P. O., Philadelphia.

THE DANGER OF EARLY ABORTIONS AND THE NECESSITY FOR THEIR PROMPT DIAGNOSIS AND TREATMENT.—It is a common observation that abortions occur more frequently now than formerly. This fact may have its origin in two causes. First in the growing unwillingness upon the part of many women to become mothers and their successful efforts in inducing abortions; and, second, in the conditions of the mucous membrane of the uterus or in the ovum itself, which defeat a healthy growth of the fœtus and thus lead to its early separation from the parent tissues.

As a result of numerous miscarriages certain conditions of the uterus are frequently recognised by those physicians who have a large experience in female diseases. Menorrhagia and metrorrhagia, subinvolution and pelvic inflammations are of frequent occurrence, and in many instances may be traced directly to mismanaged cases of abortion. Abortions taking place very soon after conception are regarded by many patients, and by many physicians, as harmless occurrences. "The woman skips," it is said: "her next menstrual period is simply excessive." This may be the fact for early separations only lead immediately to profuse flows. It is the remote results which are faulty. At the end of the first or second month the uterus has undergone some enlargement, its circulation has been modified by conception; at the same time its mucous membrane has received the ovum into its folds. The relations established cannot be disturbed even thus early without peril to the generative apparatus. The uterus must undergo involution, its mucous membrane must separate and throw off its modified coat. These conditions may take place in a physiological way if not defeated by improper conduct or

management upon the part of the patient or physician.

In calling attention to this subject it is our purpose to urge the fact that uterine disturbances have their origin more frequently in these so-called "missed menstruations" than is generally recognized. The retained products of abortion give rise to dangers immediate and remote, and there is a necessity for their prompt removal. Following the early abortions—those occurring from two to six weeks after conception—is first observed an excessive flow of blood. This may cease within the normal period of ordinary menstruation, or it may continue into one, two or three weeks, then cease to return at intervals for shorter or longer periods.

Menorrhagia and metrorrhagia thus established will usually disappear after a thorough cleansing of the uterine cavity and the local application of mild astringent solutions. Ergot given in conjunction with the local treatment is very efficacious. On the other hand allow the menorrhagia or metrorrhagia to continue, and the mucous lining of the uterus becomes granular and villous, the uterus remains subinvoluted, congested and changed in its position. Pelvic pains, nervous disturbances and anæmia are induced and the management of the patient is greatly complicated. The train of symptoms last enumerated may frequently be traced back to a "missed menstrual period." Patients coming under observation with these symptoms are not always aware of their exciting cause, and it requires some ingenuity upon the part of the medical attendant to trace them to their proper source. Whilst it is true that early abortions in many cases give rise to no considerable inconvenience and are not recognized as such at the time of their occurrence, their importance in establishing subsequent uterine disease must be admitted by those who have observed the behavior of the uterus in any number of such cases. The important deduction to be drawn from observing cases of this class has reference to their diagnosis and treatment.

The diagnosis of early abortions is not easily made out in every case. Under six weeks the separation of the ovum may lead only to excessive menstruation without pain. In other cases the blood-clots and uterine colic are pronounced. Irregular menstruation may or may not be a sequel. In those fortunate cases where the uterus returns to its normal condition a doubt as to the correct diagnosis must remain. The true diagnosis is, we think, often revealed by the subsequent behavior of the uterus and the occurrence of uterine disease under different manifestations.

The treatment of the conditions which follow early abortions should be conducted upon rational principles. The symptom most pronounced calls for first removal. Hæmorrhage should be arrested by the removal of the cause. This calls for a thorough cleansing of the uterine cavity by cautious and careful methods. Rest in bed and hot water enemata will greatly aid the involution of the uterus to its natural state. It is, we think, important to make an early diagnosis, and to institute prompt treatment in all cases of early abortion if we would have our patient escape numberless symptoms of uterine disease, which have their origin in this frequent cause.

Exit National Board of Health.—The abolition of the National Board of Health which is provided for in the sundry civil bill has been foreshadowed for some months past. In fact, for about a year the Board has had only a nominal existence, having no funds for the continuance of the scientific investigations previously forming so important a part of its functions and its quarantine duties having been transferred to the Marine Hospital Service The circumstances which have led to this result have been of a comparatively insignificant character, but have been exaggerated by envious and designing persons into unpardonable offenses. Chief among them were: 1st, the dispute which arose between the Board and the Louisiana Board and which, although the former has been fully justified in its course by the able defense of Dr. Cabell in the last annual report of the National Board, has nevertheless had great weight; 2nd, the charge of extravagance which seems chiefly to rest upon the payment of $300 to a member of the Board (Dr. Verdi, a Homœopathic practitioner, of Washington), for an essay of 8½ pages, 3½ of which are said to have been taken from an editorial in the London *Times;* 3rd, the claim that the Board is unnecessary since all its duties can be discharged by another department of the service already equipped and provided, and like

itself, a bureau dependent upon the Treasury Department, viz., the Marine Hospital Service.

The Marine Hospital Service is in many respects adapted for the work of quarantine, but whether it can carry out this work efficiently in view of the duties already devolving upon it, and which seem to have exacted its entire resources, may be considered doubtful. No provision seems to have been made for the prosecution of scientific research, which under the Board gave promise of such beneficent results to this country and to the world.

Miscellany.

Analysis of Pickled Cucumbers.—Dr. Ehoynn Waller, chemist of the Health Department, in his report to the Sanitary authorities on the analysis of pickled cucumbers colored artificially with copper, lays stress on two facts noted by him:

1st. The cucumbers contained a much larger proportion of copper than the vinegar in which they were immersed. 2nd. Cucumbers in the same lot contained widely different amounts of copper.

The first fact refutes the assertion on the part of the manufacturer, that soaking the pickles in water or vinegar removes the copper, and also shows that the vegetables have a certain amount of affinity for the metal. The second fact demonstrates that the method of coloring—immersing a plate of copper in a vat containing cucumbers and vinegar—causes the cucumbers nearest the copper to absorb more of the poison than those situated a little distance off.

The doctor has found copper in all cereals and vegetables grown in soil containing it. Consequently he states that "the question of fraudulent addition of cupric salts to articles of food turns not on the mere presence of copper, but on the proportion present." More than ten parts per million, according to Dr. Dupre, indicates artificial or accidental contamination.—*Medical Record.*

The Local Treatment of Phthisical Cough.—Dr. Quinlan, who will be remembered through his recent commendation of mullein leaves as a remedy in phthisis, contributes to the *British Medical Journal*, of April 5th, a note on the local treatment of the cough of phthisis. His patient was suffering from chronic phthisical disease of the apices of both lungs. The cough was persistent in spite of internal remedies for its relief, and very annoying.

The patient, on his own responsibility, placed some of the finely broken, dried mullein leaves in an ordinary tobacco pipe, and smoked them. The relief it brought was prompt and satisfactory. It is stated that he was not a tobacco smoker.

A correspondent of the *Medical and Surgical Reporter*, of February 16th last, relates a case in which a mixture of dried mullein leaves with tobacco, and smoked in a pipe, gave great relief from cough in a case of chronic consumption.

Relief of the cough is sometimes exceedingly desirable in consumption, but there is danger in effecting it in some cases. It is both a symptom of irritation and a means of throwing off the waste of the destructive process. In the former case, to relieve it is good treatment; to stop it in the latter is but to mask the trouble, which in the meantime is not corrected.

If mullein leaves shall prove to do as these two cases indicate, it will prove a valuable addition to the unsatisfactory list of remedies employed in this condition.—*The Therapeutic Gazette.*

Preservation of Dead Bodies.—Edward I., who died in 1307, was found not decayed 463 years subsequently. The flesh in the face was a little wasted, but not putrid. The body of Canute, who died in 1017, was found fresh in 1766. That of William the Conqueror and his wife were perfect in 1522. In 1569 three Roman soldiers, in the dress of their country, fully equipped with arms, were dug out of a peat-moss near Aberdeen. They were quite fresh and plump after a lapse of about fifteen hundred years. In 1717 the bodies of Lady Kilsyth and her infant were embowelled and embalmed. In 1796 they were found as perfect as in the hour they were entombed. Every feature and every limb was full. The infant's features were as composed as if he had only been asleep for eighty years. His color was as fresh and his flesh as plump and full as in the perfect glow of health. The smile of infancy and innocency was on his lips. At a little distance it was difficult to distinguish whether Lady Kilsyth was alive or dead,

for her features and the very expression of her countenance were marked and distinct. The bodies seemed to have been preserved in some liquid nearly of the color and appearance of brandy. The whole lead coffin was full of it, all its contents saturated with it, and the bodies were tinged with it. This unknown liquid was perfectly transparent, and its taste quite vapid. The bodies were also filled with balm and sage mint. For many months after the bodies were firm, compact and elastic. When the flesh was cut into by the surgeon, it was found quite firm. The writer does not say how much brandy he had imbibed. If he had been as blunt and truthful as Lady Hamilton, he possibly might have been speechless; or if as credulous as Sir John Pryse, he might have tried to raise the dead.—*Medical Record.*

Benzoate of Soda in Infantile Diarrhœa.—Dr. R. Guaita (*Revista Italiana de Terap. e Igiene, Gennaio*, 1884) thinks the summer diarrhœa of infants is for the most part a zymotic disease, and due principally to a special ferment (microbe), which either comes from without, or is developed during the process of digestion from certain kinds of food. It occurred to him, therefore, that benzoate of soda, recommended by Kapuscinsky and Gilewicz, would prove valuable in these cases, being anti-fermentative; it may be administered alone, or in combination with bismuth.

This treatment was tried in 53 cases, the children being from six months to two years old. In 35 cases the affection had lasted from 24 to 30 hours; in the remaining 18 from 6 to 14 days; in the 35 cases, the cure was complete in from 4 to 8 days; in the 18, the average time was 21 days. The treatment is preceeded by an efficacious purge—calomel or jalap; this having acted, the soda treatment is commenced.—*Gazz. degli Ospitali*, March 30, 1884.

Naphthalin in Diarrhœa.—Especially in the diarrhœa of children, naphthalin seems to be an invaluable remedy. Prof. Rossbach, in Jena, has made a series of observations, and discovered that in all catarrhal conditions of the intestines, whether they coexisted with ulcerations or not, also in all inveterate, chronic intestinal affections, and in those of small intestines as well as in those of the large bowels, provided they did not depend upon organic, incurable diseases, as cancer, etc., naphthalin was a specific, and invariably caused the disappearance of the malady. He never noticed any bad side or after effect, and most of the naphthatin passed off again by the bowels, while a small percentage of it, changed to phenol, made its appearance in the urine. The usual dose for adults was from eight to ten grains daily.

The remedy had also a very favorable influence upon all cases of vesical catarrh, the purulent discharge at once ceasing, and he attributes its beneficial effect in such cases to the changing of naphthalin to phenol in the urine—as phenol, especially in the nascent state, is a very powerful aseptic remedy, at once destroying all micro-organisms with which it comes into contact.

Patients do not generally object to the taste of naphthalin, if it is purified and obtained by sublimation; as a corrigens for its odor, a few drops of bergamot oil can best be recommended.—*Deutsche Med. Zeit.*, p. 379, 1014).

Febrile Lassitude.—Under this title (*courbature febrile*) Dr. C. Eloy describes the condition characterized by a moderate degree of pyrexia, some gastric disturbance, and extreme lassitude, with a bruised feeling in the muscles. There is almost constant headache, with pains in the legs and lumbar regions. The fever is moderate, seldom more than two or three degrees above the normal, and usually presents an evening exacerbation. The digestive disturbances are slight. The abdomen is soft and painless, and without any eruption. Constipation is the rule. The fever subsides in three or four days, but the headache and anorexia remain for a few days longer. The cause of this condition is found in excessive fatigue following prolonged muscular exertion. It also results from exposure to extreme cold or heat. Violent emotion or a severe mental shock may cause similar phenomena. It is due to disturbances in trophic innervation, and occurs with greater frequency at the two extremes of life, when the nutritive processes are either very active or very sluggish. It may at the outset be mistaken for a commencing typhoid fever, but a short time suffices to clear up the diagnosis. It may be distinguished from a bilious attack by the condition of the tongue, which in the latter is heavily coated, while in *courbature* it is usually clean. The treatment consists in rest and the exhibition of quinine in small repeated doses. The feeling of extreme weakness is best relieved by cocoa or alcohol in some form.—*L'Union Medicale, May 24th, 1884.*

Resection of Muscles in Infantile Paralysis.—Mr. Keetley has recently undertaken the resection of part of the quadriceps extensor femoris in a case of infantile paralysis, causing inability to extend the right knee. By shortening the weak, relaxed, and partly atro-

phied muscle, the operator hoped to increase its strength, with the aid of electricity during recovery from the operation. Mr. Willet has already resected the tendo Achillis in paralytic talipes calcaneus, with good results, finding that the shortening of the abnormally elongated tendon enables the muscles of the calf to regain some portion of their lost functions, especially when the muscular wasting has been chiefly due to disease, and has not advanced too far. Mr. Keetley's patient was a boy aged 6, who had suffered from paralysis of the right lower extremity for four years, and the muscular atrophy was not complete, yet sufficient to prevent thorough extension of the knee. A longitudinal incision was made in front of the thigh, about three inches in length, ending an inch above the patella; the skin was held apart by retractors, and one inch of the entire substance of the quadriceps was cut away with scissors, about two inches above the patella. The separated ends were united by means of about one dozen carbolised catgut-ligatures. Esmarch's bandage had been applied before operation, and only one small artery required ligature. The wound was dressed with a small iodoform-pad and carbolic-gauze, and the limb placed on a back-splint at an angle of sixty degrees with the bed. The operation was performed on May 6th. The wound healed rapidly and perfectly, and, when a sufficient time has elapsed, the results will be made known.—*British Med. Journal.*

Poisoning by Carbolic Acid Successfully Treated with Camphor.—This was a case of puerperal fever following abortion at the seventh month. Vaginal injections of carbolic solution (one per cent.) were ordered to be used three times a day, with phenate of quinine internally. On the second day of this treatment Dr. Altara was summoned in haste, and found the patient with very frequent scarcely perceptible pulse, temperature fallen to 35° C (95° F.), a cold sweat, vertigo, difficulty of swallowing, pain in the loins, enuresis, and hemoglobinuria. There was no doubt that the patient was suffering from symptoms of carbolic acid poisoning, with symptoms of collapse and irritation of the kidneys. A mixture of castor oil and glycerine was at once given, and an injection of water and oil of almonds. Three hours afterwards the patient was worse. Dr. Altara, being struck by the analogy of the symptoms of irritation of the genito-urinary organs with those produced by cantharides, determined to give camphor, the good effect of which in the irritation produced by cantharides is well known. Half a gramme (seven and one-half grains) of camphor in 200 grammes of orange syrup was prescribed, a tablespoonful to be given every hour. About half an hour after the first dose, the toxic symptoms began to diminish; after the third dose, the improvement was very evident; and after the fourth the pains were so much better, that the patient fell into a tranquil sleep, which lasted for some hours. In the morning she was cheerful; pulse 70, temperature 36·2° C. (97° F.); and she convalesced rapidly.

In this case camphor behaved as a true antidote; the toxic symptoms disappeared entirely four hours after beginning the camphor. Bufalini and Sinler recommend a mixture of camphor and carbolic acid, which they affirm to be in every respect superior to carbolic acid as a dressing for wounds. It is not caustic, and can be used in large quantities without danger of poisoning.—*London Medical Record.*

Iridin in the Treatment of the Sickness of Early Pregnancy.—Dr. Berry Hart reccmmends the use of two grains of iridin in the form of a pill to be taken at night, and to be followed in the morning by a draught of Friedrichshall water, a teaspoonful of Carlsbad salts, or a doubly strong Seidlitz powder. He states that out of nine cases where this treatment was tried, eight were cured. He was led to the use of this remedy by Dr. Matthews Duncan's allusion to the probable influence of the liver in causing the vomiting of pregnancy.—*Edinburgh Clinical and Pathological Journal*, February 16th.

Premature Labor at the Paris Maternité.—In a paper read some time since at the Academie de Medicine (*Union Medicale*), Prof. Hervieux stated that of the 16,173 deliveries which took place at the Maternite during the period 1861-82 inclusive, 5,236 were premature, or about 32 per cent. During the first six years of the period the proportion was as high as 33.96; while during the last six years it was only 27.50. The proportions did not bear any relation to the fact that the years were years of prosperity or adversity, and Prof. Hervieux, without denying the existence of other influences, believes that the chief cause of the high proportion is the sanitary condition of the Maternité itself, his proportion corresponding to that of its mortality curve. He attaches much importance to the influence of residence in a hospital upon a pregnant woman, the chances of premature labor increasing in proportion to the length of this. As practical conclusions he recommends that during the prevalence of epidemics, maternités should be closed to

pregnant women, and that at other times they should not be admitted until as near the time of their expected delivery as possible.—*London Medical Times.*

Utility of Coca.—Dr. Hicks (*New York Medical Journal*) expresses surprise that this substance is so seldom employed, and enumerates the circumstances under which he has found it highly useful. These are (1) to prevent and relieve fatigue; (2) in back-ache, accompanied by high-colored urine, with excess of uric acid and urates; (3) in short breathing from weakness of the muscles of inspiration; (4) palpitation, without valvular lesions, due to dilatation, or weakness of the heart-muscle; (5) it renews the vigor of the intellect, and relieves mental exhaustion, rendering the flow of thought more easy, and the reasoning power more vigorous; (6) it dissipates the "blues," leaving the mind calm; (7) it destroys the craving for alcohol, and in small doses is useful in sick headache, and headache resulting from over-exertion; (8) its habitual use as a part of the daily diet conduces to mental clearness and activity, freedom from fatigue, and sound sleep.

Sea Sickness and its Prevention.—Naupathia is the bête-noir of the people who go down to the sea in ships, and the ingenuity of man has been taxed for remedies for its relief. The affection has been approached on all sides by those who would discover the weak spot at which it might be successfully attacked; but as yet the efforts of the scientific investigator and therapeutist have been productive of scarcely more satisfactory results than have those of the empiricist. To review the remedies which have from time to time been suggested would be to go over a very large section of the Materia Medica. The latest for which confidence is asked is coffee. It is not intended to imply, however, that coffee has never before been suggested. It is now advocated by Dr. J. Henry Bennett in a communication to the *Lancet.* The benefits which he claims are through the time and method of its giving. Given one hour before embarking, a sufficient time to ensure its absorption, a cup of strong coffee will, he assures his readers, ward off sea-sickness.

It is essential that the coffee be pure and not adulterated with chickory, and that the infusion be strong and taken without milk. The strength which Dr. B. prescribes is an ounce-and-a-half of pure coffee powder infused in four ounces of boiling water, for ten minutes. To obviate exhaustion a good meal of easily digested food should be taken about four hours before embarking.

Dr. Bennett ascribes the beneficial action of the coffee to its action on the nervous system, acting as a brain and nerve tonic and strengthening the sympathetic, thus rendering it less impressionable to liquid shocks. The influence of the infusion lasts for eight or ten hours, previous to the expiration of which another draught similar to the first, should be taken. For short journeys he regards the remedy as infallible, but does not vouch for its absolute certainty in long journeys. Should sea-sickness develop in the latter case, in spite of the coffee, which it sometimes will, he advises the rectal injection of 15 to 20 drops of laudanum in an ounce-and-a-half of warm water. If not retained, it may be repeated in half an hour.

The absorptive function of the stomach is suspended in sea-sickness, and it is useless to give medicine *per os*, under those conditions. The rectum does not become sick nor lose its power of absorption.—*The Therapeutic Gazette.*

Solidified Creosote.—In its application to carious teeth, creosote is often inconvenient in consequence of its fluidity producing ill-effects upon the mucous membrane of the mouth. This may be obviated by giving to it a gelatinous solidity by adding ten parts of collodion to fifteen of creosote. This, besides being more manageable than liquid creosote, also closes up the orifice in the tooth, preventing the accession of the the air to the dental nerve.—*Progres Medical.*

Iodoform in Erysipelas.—There would seem to be no limit to the uses to which iodoform may be put in restoring the human form divine to its pristine vigor. In the May number of the *Practitioner*, Mr. Clark Burman commends it for erysipelas. He used a solution of one part of iodoform in ten parts of collodion, and found that after a single application of this the pain and heat were relieved, and that the tendency to spread ceased. This good result could not be attributed to the internal treatment adopted, nor to the collodion, because Sir James Paget expressly states that it does not check the spread of the disease. —*Lond. Med. Times.*

Medical Items.

The American Neurological Society, which held its tenth annual meeting in New York last week, elected the following officers for the ensuing year: *President*, Dr. B. G. Wilder, of Ithaca, N. Y.; *Vice-President*, Dr. Leonard Webber, of New York city; *Secretary*, Dr. G. M. Hammond, of New York city.=Dr. George B. Fowler has been elected professor of physiological chemistry in the New York Polyclinic, and Dr. T. Gaillard Thomas has been elected a director in the same institution.=The medical societies in this city have adjourned for the summer months.=The Appletons will bring out during the present month a novel entitled "Lal," of which Dr. Wm. A. Hammond is the author.=The publication of the *Index Medicus* will be continued until the end of the year, notwithstanding the fact that Mr. Leypoldt, the publisher, is dead.=Governor Cleveland has vetoed a bill appropriating $25,000 for enlarging the homœopathic lunatic asylum at Middletown, N. Y., and also the Adulteration of Food and Drugs bill.=Kairin is recommended for reducing the pyrexia in pulmonary phthisis. Its exhibition, however, requires considerable watchfulness.=A correspondent of the *British Medical Journal*, from Paris, reports a case of death from hemorrhage after tracheotomy in a child, on the twelfth day after the operation.=Bellevue Hospital Medical College, New York, has decided to issue its diploma hereafter in English instead of Latin.=M. Duprez, a veterinary meat inspector, of Paris, fed some rats on trichinous meat for thirty-one days; they remained in perfect health. A piece of muscle was removed from the thigh of each animal, and was observed to be free from both young and encysted trichinæ.—*Med. and Surgical Reporter.*=M. Gèrad Lagüe (*Lyon. Med.*) states that syrup of gooseberry will completely disguise the taste of iodide of potash. (*Idem.*)=The Medical College of Ohio proposes to hold in future a preliminary examination of all candidates for admission to the lecture classes in the absence of a diploma or other evidence of sufficient literary training.=The Garfield Hospital, located on the corner of Boundary and Tenth Streets, Washington, D. C., has been opened for the reception of patients.=Prof. Czerny, who holds the Chair of Surgery at Heidelberg, is described as a man about forty-five years of age, with dark hair and broad shoulders. He has an energetic twinkle in his eyes, and is genial and good-humored.=A movement is on foot in Philadelphia to establish a Professorship of Pathological Anatomy in some medical school in honor of Prof. S. D. Gross. The profession and public are requested to contribute to the fund.=It is stated that M. Parize, a French *savant*, has discovered swarms of bacteria in the very centre of a common house-brick.=Professor Gosselin, the most distinguished of the French surgeons, since the death of Nelaton, has, by reason of advancing years and impaired health, found it necessary to resign his chair in the Paris Faculty.=The International Congress of Hygiene and Demography, which will assemble in Hague, from the 21st to the 27th of August, will be a most important gathering. The first section will be devoted to general and international hygiene; the second, to that of towns and rural districts; the third, to personal, and the fourth to professional hygiene. Among the papers to be read, is one by M. Pasteur on "The Attenuation of Virus."=It is stated by the London *Times* that the death of Dr. James Staunus Hughes may possibly lead to an amalgamation of the School of Surgery of the Royal College of Surgeons in Ireland with the Carmichael College of Medicine of Dublin.

CHANGES IN THE MEDICAL CORPS OF THE U. S. NAVY during the week ending, June 21, 1884:

Surgeon J. S. Knight ordered before Retiring Board.

P. A. Surgeon C. G. Herndon detached from "Albatross;" ordered to attend officers of Navy and Marine Corps, in Washington.

Surgeon J. M. Flint detached from Smithsonian Institute, ordered to Fish Commission Steamer "Albatross."

Assistant Surgeon P. Leach ordered for examination preliminary to promotion.

Passed Assistant Surgeon J. E. Gardener detached from U. S. Steamer "Lancaster", ordered to U. S. Steamer "Powhatan."

Passed Assistant Surgeon J. C. Boyd detached from U. S. Steamer "Lancaster"; ordered to U. S. Steamer "Powhatan."

CHANGES IN THE STATIONS AND DUTIES OF THE OFFICERS SERVING IN THE MEDICAL DEPARTMENT U. S. ARMY, from June 17th, 1884, to June 23rd, 1884:

Magruder, D. L., Lieutenant-Colonel and Surgeon, granted leave of absence for one month.

Happersett, J. C. G., Major and Surgeon, granted leave of absence for four months.

Clinical Lecture.

CONVULSIONS IN CHILDREN—CATARRHAL JAUNDICE.

A Clinical Lecture, delivered at the Hospital of the University of Pennsylvania,

BY WILLIAM PEPPER, M. D., LL. D.,

Provost of, and Professor of Clinical Medicine in the University of Pennsylvania.

Reported by WILLIAM H. MORRISON, M. D.

CONVULSIONS IN CHILDREN.

GENTLEMEN—This little girl is over two years old. Her parents are healthy. They have three other children, two of whom are healthy but the third was born with valvular disease of the heart. This child nursed until it was fourteen months old. Since then its mother thinks that it has been over-fed. The child has a constant craving for food. The bowels are constipated and when they are opened, the stools consist of lumps of fæcal matter with a lage amount of mucus. About eight months ago, it had a fit, in which it became unconscious and worked its arms and face. Since then it has had eight or nine attacks, and they are increasing in frequency. She has been slow in cutting her teeth. She had a good many at the twelve months, but did not get any more until she was two years old. She has now twenty teeth. They appear to be healthy and exhibit no notches or other evidence of hereditary defect.

This kind of case is common enough. This is a case of convulsions without apparent cause. Many of these cases are beginning epilepsy, but many are not so, and it is impossible to say positively in a case like, the present one, whether or not the convulsions denote the commencement of epilepsy.

The evidence is in favor of, or against the idea of epilepsy, as we find a local cause for the eclampsia, and as we succeed in controlling the convulsions by removing the local cause. When these convulsions occur in children, it of course indicates a convulsive tendency, but many of these children grow up perfectly strong and hearty. Children naturally exhibit a more marked convulsive tendency than do adults. Some children have this tendency highly developed. An attack of acute indigestion or the beginning of one of the specific fevers will throw such a child into spasms. They show a condition of nervous centres favoring the development of convulsions on slight provocation. This convulsive tendency is something different from that degree of convulsive tendency which would justify the term epilepsy. It is, therefore, very rash and premature to conclude that a child who has had a series of convulsions is necessarily going to become an epileptic. In many cases the seizures are due to the undue mobility of the child's nervous system, which is brought out by some local cause, and in proportion to the continuance of the local cause does the significance of the convulsion depend. The less the local cause, the more serious are the convulsions, as indicating a higher degree of central mobility, while the greater the local condition the less serious the convulsions as indicating only a moderate degree of central weakness.

In the present instance the appearance of the convulsions has been cotemporaneous with dentition. The first attack occurred when dentition was actively progressing. The teeth were at that time forming in the sockets and preparing to erupt. The time when the teeth give the most trouble is not always when the gums are inflamed, stretched and tender. Frequently, it is while the teeth are forming deep in the socket, and the gum may be pale or only slightly reddened. The fact that the teeth were thus progressing is shown by the fact that at the end of the second year the number of teeth increased rapidly from twelve to twenty. As I have said the paroxysms were cotemporaneous with dentition. This is always a favorable point. Many children have convulsions with nearly every tooth that they cut, and afterwards never have any seizures.

In the second place, this child has suffered nearly all its life from gastro-intestinal irritation. This has taken the form of morbid craving, and exaggerated craving for food, which the mother thinks was injudiciously gratified. There is the production of a considerable amount of mucus which coats the fæcal mass as it comes away, or is discharged separately, showing that there is a condition of irritation of the intestinal mucous membrane. I need not say to you that such a condition is among the most frequent and potent causes of convulsions in children. I attach the greatest importance to the intestinal irritation which exists in this case.

I would say that the prognosis is altogether favorable. In all probability, it will not prove to be a case of epilepsy, but one of eclampsia occurring in a child with a sensitive nervous organization, which may possibly have been inherited, for it is curious that a healthy young woman should have four children, one of whom has valvular disease of the heart, and another exhibiting this tendency. There may be some

constitutional cause behind, which it would require long investigation to develop. Whether this is so or not, we have a child with a sensitive, mobile, nervous system, irregular dentition, intestinal catarrh, lasting for a considerable time, and this decided character of the local conditions renders it very probable that the convulsions will prove to be those of eclampsia rather than of epilepsy. The dietetic management and the cure of the intestinal irritation are matters of the greatest importance. Here is a case where I should not use bromides or other anti-convulsive, but should trust to the regulation of primary digestion and assimilation. Questioning the mother as to the diet, she tells me that the child takes for breakfast oat meal or rice, which has been cooked for a long time and strained; about 11 o'clock, rice and milk; at 3 o'clock, rice, sometimes oat meal; at 5.30 P. M., it is given granum. This is a very improper diet. The powers of the child to digest starches is defective, for the salivary and pancreatic glands are not as prominently developed in infancy as are the gastric tubules, and hence the amount of starchy food given to a child should be limited. Instead of that this child has been fed on an almost exclusively starchy diet. I should suggest a dietary something like the following:

At 7 A. M., oat meal gruel, prepared with water, strained, two parts of the gruel being mixed with one of milk and again strained.

At 10.30 A.M., a soft boiled egg, the egg being boiled only long enough to simply harden the white. With this a little stale bread may be taken and the child should be encouraged to drink ordinary, carefully filtered water.

At 2.30 P. M., oat meal, or beef broth with stale bread.

At 5 P. M., oat meal gruel.

Scraped raw meat would come in very well for one of these meals. There is of course a little risk of tape-worm from this article. It was only yesterday that I received a tape-worm which had been passed by a child three years old, which is the earliest age at which I have seen tape-worm. The tape-worm was very small. It bore the same proportion to the size of the tape-worm in the adult as did the size of the child to that of the adult. This worm was about thirty inches long. In those countries in which raw meat is largely used as an element of diet, particularly in Russia, where the use of raw meat in disease was introduced, and where it has been employed more than in any other country, tape-worm is quite common. Extreme care in the selection of the meat would suffice. A better plan is to rapidly heat the meat up to a point where the ovum will be coagulated and its vitality destroyed, scraping it. This is a much better diet than the child has been taking.

The use of purgatives must be avoided. If this diet does not prove sufficiently laxative, the bowels may be opened by enema. A little of the juice of stewed prunes, or scraped raw apple, or bread and molasses, might be used, but I should prefer, especially while the bowels show evidence of so much irritation, to avoid the use of these articles, and depend upon an occasional injection.

Internally I shall give nitrate of silver in small doses. I should prefer to give it in pill form, but as the child cannot take this, I shall be compelled to give it in solution.

℞. Argenti Nitratis, gr. ss,
Glycerinæ, ℥iij,
Aquæ, ℥xxj. M.

Signa.—A teaspoonful three times a day.

Extreme care must be taken in regard to the clothing. It should not be bathed frequently. Every day it should be well rubbed with the dry hand, and this be followed with the rubbing in of a little oil. Once a week it may be rapidly sponged with warm whiskey and water, dried, and oil rubbed in.

I should expect decided improvement from this course of treatment.

CATARRHAL JAUNDICE.

This man was admitted to the hospital four weeks ago. He is 35 years of age, colored, a laborer by occupation, hard-working and much exposed to the weather, regular in his habits with the exception of drinking rather more whiskey than is good for him. He had the ordinary acute diseases, but not recently, and for many years enjoyed excellent general health. Two weeks before admission, after exposure to weather while in good health, he had a severe creep, pain in the bowel, diarrhœa, slight nausea and loss of appetite, the ordinary evidences of acute gastric irritation

and catarrh. In a few days the stomach became very irritable, rejecting everything that was taken, even water. There was, at this time, only a moderate amount of pain in the stomach. The diarrhœa stopped and was followed by constipation. The vomiting and diarrhœa continued until he was admitted, when being placed on a restricted diet, the vomiting disappeared.

One week after he was first taken sick, jaundice appeared, became intense and persisted until admission. He states that he had but little fever, but that he lost flesh very rapidly, and he makes the rather incredible statement that he lost 54 pounds of flesh during his illness. Since admission he has gained 34 pounds, so that this statement is possibly correct. The range and rate of loss of flesh is much greater than we are accustomed to think. I have had repeated opportunities of pointing out the extraordinary losses and extraordinary gains in weight which sometimes occur. We have had men gain at the rate of two or three pounds per day. We have had others who lost with almost commensurate rspidity. This man would seem to have lost 54 pounds in 17 days. On March 19th he weighed 110 pounds; to-day (April 12th) he weighs 143 pounds, therefore showing a gain of 33 pounds in 25 days. This is a rapid gain, but he had lost much more rapidly. His account would make it three pounds per day.

The man gave a history of a sharp attack of catarrhal jaundice, which began with a gastro-duodenal catarrh from exposure to cold, showing itself by the common symptoms, griping pain in the hypochondrium, nausea, vomiting, foul tongue, loss of appetite, slight fever, languor and aching in the limbs. This is the usual way in which gastro-duodenal catarrh begins. It traveled up the gall ducts, causing swelling and obstruction and preventing entirely the passage of bile into the duodenum, and stopping this important part of intestinal digestion. The gastric symptoms appeared to be very serious and the vomiting was in reality incessant from the time that he was taken sick until admission. Even water would not remain on the stomach. He had been taking a variety of strong medicines, and this with the coarse food which he received, served to keep up the vomiting. When he was placed on a suitable treatment the vomiting at once ceased and did not recur. When admitted, he was given arrow-root water, an opium suppository and nutritive enema. This checked the vomiting, showing that it had been kept up by injudicious treatment and improper food.

These cases are usually readily cured, excepting those cases where the inflammation of the duct is so severe, and the infiltration so great that the obstruction is more obstinate, or where as occurs more rarely, the inflammation is so violent that it runs into ulceration, which is followed by cicatrization, contraction and partial occlusion of the duct. Under such circumstances long and tedious processes are required before the duct can be restored to its normal condition and frequently its normal calibre cannot be restored. The treatment of such a case as the one before us, requires in the first place absolute rest, which should not only be rest general for the body, but rest for the affected part, which means that the diet must rigidly be regulated, and that no particle which is heavy, rich, indigestible or irritating, should be admitted. In these acute conditions affecting the gastro-duodenal tract, the patient can safely be trusted to live on the stored albumen and the tissues of the body for a few days until the local irritation has subsided. The attempt to introduce any considerable amount of nutritive matter would inevitably increase the catarrh and produce far more damage to nutrition than would be done by starving the patient for a few days. Instead of beginning the treatment with active purgation or the use of strong irritating nourishment, as is so often done, exactly the opposite plan of treatment should be pursued. For the first few days, strained oatmeal gruel, arrow-root water with one-third milk, or chicken broth, may be given in small quantities at short intervals. If the disease occurs in a person who has been run down from other causes, and you fear that such a restricted diet is not sufficient, you may resort to nutritive enemata. These are not necessary in the majority of cases. Thirst may be relieved by plain carbonated water, small pieces of ice, or sips of boiling water. Counter-irritation to the hypochondrium should always be used. A blister may be applied with the greatest benefit in the early part of the attack. To allay the irritability of the stomach we resort to minute doses of calomel; one-tenth or one-twelfth of a grain may be given every two hours. If there is vomiting, it may be combined with bismuth. If the stomach is less irritable, the tongue coated and the secretions scanty, it may be given in connection with bi-carbonate of sodium. As soon as the stomach is quieted and the bowels moved by the use of calomel, I always give nitrate of silver in small doses, from one-eight in adults to one-forty-eighth or one thirty-sixth in children, repeated four times a day. This will usually allay the gastric catarrhal irritation, and if nothing is done to renew or increase it the swelling will soon be removed and the secretions will take their proper course, the jaundice diminish, the urine become lighter, the stools darker, the appetite

return and the convalescence be rapid and satisfactory.

This man was put on this treatment. He first took minute doses of calomel with bicarbonate of sodium. When the stomach became less irritable, he was given one-sixth of a grain of nitrate of silver with one-tenth of a grain of opium in pill form. To overcome a little constipation which followed, he took one drachm of Rochelle salts before eating. When the jaundice subsided he was put on the use of 5 drops of dilute muriatic acid, with 10 drops of tincture of nux vomica and a drachm of compound tincture of gentian. The diet has been extremely simple.

The man is now convalescent, but I should like to see his weight go up to 150 pounds before he leaves the hospital.

Original Papers.

THE DEMAND FOR EARLY EXPLORATORY TREPHINING IN DEPRESSED FRACTURES OF THE SKULL.*

BY JOHN B. ROBERTS, M. D.,

Professor of Anatomy and Surgery in the Philadelphia Polyclinic.

In using the term trephining I apply it to all methods of removing portions of the cranial wall, whether by the trephine, saw, burr of the surgical engine, gouge or cutting forceps.

From observation, experience and considerable acquaintance with the literature of the subject, I am convinced that surgeons are induced to decline or postpone the operation of trephining because of a mistaken idea of its serious nature, and a misunderstanding of the reasons for its adoption.

The frequency with which successful trephining was done in past centuries without the benefit of our improved methods and instruments, and the infrequency of death or serious symptoms from the operation itself at the present day, convince me that, though a capital operation, it is not one having in it many elements of danger That many deaths occur after trephining is admitted. Such fatal results must often occur, for injury to the skull bones is usually and almost necessarily coincident with disturbance or actual lesion of the brain or its membranes. I believe that more deaths are attributable to non-performance or delay in resorting to the performance of trephining than to its adoption. It behooves those who greatly limit the application of the operation to prove, by citation of cases, that a fatal issue has been induced by the procedure itself in a sufficient number of instances to throw the operation into the class called dangerous. To merely show that many cases of serious skull injury recover without trephining is not sufficient.

Much controversy on this subject would be avoided if the advocates and the opponents of an extended use of trephining would clearly formulate their opinions as to the theory upon which the operation is performed. In my opinion, trephining should be regarded in the light of an exploratory rather than a therapeutic procedure. I incise the scalp, in closed fractures of the skull, not because the incision cures, but because it tells me the condition of the bone, without which knowledge I am unable to treat the patient rationally. The uncertainty of the lesion is, in my opinion, more dangerous to health and life than the conversion of a closed into an open fracture of the skull, because the observation of the profession teaches that open cranial fractures do not resemble, in fatality, similar open fractures of long bones. In truth I would be willing to make a closed fracture of the thigh or leg an open one, if it was otherwise impossible to replace fragments which were threatening life. If I but learn the character of the skull lesion, I am acquainted with surgical expedients that render restoration to health more probable than the complication due to the incision renders it improbable. Hence I am justified, nay, compelled, by my reason, to advocate exploratory incisions of the scalp in obscure injuries of the skull.

The same line of reasoning forces upon me the conclusion that I should trephine whenever the fracture, whether originally an open one or so made by my incision, presents the possibility of the inner table being detached and splintered more extensively than the outer. In other words, I should cut the scalp to see the condition of the outer table; I should cut the bone to see the condition of the inner table, in every case where the risk of obscure knowledge is greater than the risk of divided scalp and perforated bone.

*Read before the Philadelphia County Medical Society, June 18th, 1884.

Many experimental fractures made in the dissecting-room, and observation of cases in the practice of myself and of others, teach me that extensive shattering of the inner table, is of frequent occurrence in other as well as in punctured fractures. I admit that the condition in the dead subject, with its shrunken brain, is different from that in the living; but there is much evidence of the same splintering to be found in the study of accidental homicidal skull fractures. Punctured fractures have been treated by early trephining, to avert encephalitis. For the same reason I recommend resort to trephining, to avert encephalitis. For the same reason I recommend resort to trephining in more diffused and less acentuated fractures. It is to prevent inflammatory sequences due to splinters forced into the membranes and brain, and to avert the consecutive occurrence of epilepsy and insanity, that the operation should be performed; not because of the fear that symptoms of compression of the brain may arise, nor because necrosis of detached portions of bone may occur.

I am not a believer in the pathology that the symptoms which we call "compression of the brain" are due to displacing pressure exerted on the brain substance. How can a slight or even a considerable depression of a limited area of bone produce much pressure upon the brain substance? How can the usually limited extravasation of blood under the seat of fracture fatally compress the brain, which is of firmer consistence than the blood itself? A rapidly acting heart, after violent exercise, will throw enough additional blood into the cerebral vessels to produce more intracranial pressure than the ordinary depressed fracture. The complexus of symptoms called compression of the brain may be the result of a disturbance in the local capillary circulation of the membranes and subjacent nervous tissue; but I cannot believe it to be due to compression or displacement of the brain itself. It is more probable that compression symptoms are the results of encephalitis, due to injury from spicules of the inner table, or to the irritation of intracranial bleeding.

As soon as the profession repudiates the idea that brain displacement is what causes compression symptoms, so soon will every surgeon be convinced that early trephining is a proper exploratory procedure in order to determine what measures are demanded to avert encephalic inflammation.

"Compression of the brain," as seen after injury, should be translated "inflammation of the brain," and looked upon as probably due to unrelieved irritation of the brain periphery, from traumatic causes. Not until this is so understood will the discussion as to the utility of trephining in depressed fractures cease.

I repeat then, that trephining is not a therapeutic but an exploratory operation; and, as such, is demanded with much greater frequency than is usually supposed. If it is to be employed for exploratory and diagnostic purposes, early resort thereto needs no defense.

When about to use the trephine itself for perforating the skull, to allow elevation and extraction of fragments, the surgeon should select a small conical instrument; one not over three-eighths of an inch in outside diameter at the cutting end is large enough. Those usually kept by the instrument makers are too large. It is only necessary to bore an opening sufficiently large to admit the end of the elevator; hence a small trephine is always more proper than a large one, except in those comparatively rare cases where a large disk is to be removed *over* the line of an old depressed fracture. Recently, I visited the four principal instrument makers of Philadelphia, and could not find in stock any trephine as small as that which I recommend. The belief which has caused trephines to be made so large is founded on an erroneous theory.

In recent depressed fractures the trephine crown should be applied upon the solid bone, and should overlap the *least* depressed edge of the displaced fragment. This allows more ready elevation or extraction by means of the elevator, because the *most* depressed edge is very frequently beveled, with the inner table broken at a more distant spot, and is thereby wedged under the solid portion of the skull at that side. Elevation at the least depressed edge is effected more readily and with less danger to the brain from the manipulation.

To conclude, I assert that in all subcutaneous injuries of the head with possible existence of depressed fracture, an immediate exploratory incision should be made in the scalp. In all instances of depressed fracture with *possible* existence of splintering and spiculation of the inner table, an immediate exploratory trephining of the skull should be done.

Correspondence.

PHILADELPHIA, June, 1884.

DEAR SIR:—At the meeting of the American Medical Association held at Washington in May last, an Amendment to Regulation II. was adopted, which provides that—

Membership in the Association shall be obtainable by any member of a State or County Medical Society recognized by the Association, upon application endorsed by the President and Secretary of said Society; and shall be retained so long as he shall remain in good standing in his local Society, and shall pay his annual dues to the Association.

You will perceive that, as far as such opportunities are embraced, the strength of the Association will be increased and consolidated, so as to unite the profession, and give it a force and influence not otherwise attainable. Without undertaking, however, to point out the advantages of this action on the part of the Association, or to advocate the plan of which it is a main feature, it may simply be said that, as the new departure has been taken, it is for the Association and its constituent bodies to carry it out to the fullest extent, and to give the movement their hearty co-operation.

Toward this end, the first step is to make the action of the Association as widely known as possible; and you are, therefore, requested to bring the matter to the notice of your Society and its individual members, either by circular, or in such other way as may seem to you most effective for the purpose.

Applications for membership, in the manner specified above, accompanied with FIVE DOLLARS for annual dues, should be sent directly to the Treasurer, Dr. Richard J. Dunglison, Lock Box 1274, Philadelphia, Pa.; on receipt of which the weekly Journal of the Association will be forwarded for one year to such member.

Respectfully yours,
WM. B. ATKINSON, M. D.,
Permanent Secretary.

UNIVERSITY OF PENNSYLVANIA,
June 24th, 1884.

To the Editor of the Md. Med. Journal.

DEAR SIR:—May I ask you to insert into your columns the present lines in order to permit me to take exception to some statements which my friend, Dr. Shakespeare of this city, made on the occasion of a discussion on Tuberculosis, before our County Medical Society, some months ago, and which he printed in the last issue of your valuable journal.

I do not consider it necessary to comment upon the bulk of Dr. Shakespeare's statements, as these are entirely of local and biographical interest, not pertinent to the question at issue, and further present merely sentiments of personal opinion expressed more or less gallantly, concerning no one, and hurting no one—except, perhaps, Dr. Koch. For, had Dr. Koch only dreamed about what valuable service Dr. S. would render to his cause, and had had time to pay any attention to Dr. S. during his stay in Berlin, he surely would have caused his assistants to give Dr. S. the necessary second month of tuition in mycology. Not only this,—Dr. Koch surely would have induced Kaiser Wilhelm to decorate Dr. S. with one of those crosses, even if this be ahead of time. That occurs once in a while in Germany. What a pity is it that Dr. Shakespeare and myself are not subjects of Bismarck, who, when the tubercle bacilli were demonstrated to him, is said to have exclaimed: "how stupid and blind the whole medical world is not to have seen these things that are so blue"!

Nevertheless it required the master hand of Koch to render them blue.

It is cruel of my friend Shakespeare to say, as he does in his remarks (in your last issue), that I have accused Koch of unscientific work! Those who honored me on various occasions with their attendance in scientific meetings, in the lecture room of in the laboratory, or those who read my papers—can testify that I ever did justice the *mycological* work of the discoverer of the tubercle bacillus, even if, so far, I cannot find reason to agree with all of his conclusions.

There is, however, in the report of Dr. Shakespeare's remarks (page 146 of your journal), a statement which is important and which really caused the writing of these lines. This statement grossly misrepresents me, and is probably the fault of the stenographer who reproduced Dr. S.'s remarks.

I am erroneously quoted to have made the declaration "*that Koch had so far modified his views that he now admitted that neither the form, size and aspect of the tubercle bacillus, nor its want of individual motion, nor its peculiar behavior toward staining fluids, aistinguished it from many other bacilli.*"

This is not true. What I ever said or published on this particular point (in regard to Koch's view) was this:

Dr. Koch kindly demonstrated to me a number of specimens of bacilli, and in particular the appearance of these bacteria exhibiting under low amplification the peculiar S-like figure in the growth in masses. *Koch seems now to lay more stress* upon this low-power appearance and upon the pathogenetic properties of the bacillus tuberculosis as a distinguishing feature from other bacilli than upon the color test. During the conversation he admitted that some other bacilli may also yield the same mi-

cro-chemical reaction as the tubercle bacilli, but insisted that the latter bacilli cannot be stained brown. The failure of the tubercle bacilli to take the brown stain, he said was the reason that they cannot be well photographed (blue and red-stained objects not being suitable for photographing).

Yours very respectfully,

H. F. FORMAD.

Society Reports.

PHILADELPHIA COUNTY MEDICAL SOCIETY.

DISCUSSION ON RECURRENT IRITIS.

(*See Maryland Medical Journal, p.* 61.)

Dr. Shakespeare, in opening the discussion, said: I agree with Dr. Risley as to the importance of a knowledge of the pathology of these troubles, but I am not entirely in accord with him when he suggests that recurrent iritis is most frequently the direct consequent of extension of inflammation from the choroid.

My own observation, and even some of the cases related by Dr. Risley, create in my mind the very strong impression that recurrent iritis, when not directly caused by irritation due to suddenly and constantly checked movements of the iris, where a partial synechia exists, is frequently brought about by constitutional conditions which affect the iris quite as directly as they do the choroid. I refer, for instance, to the agency of the syphilitic or rheumatismal poison in the production of inflammations, and express my belief that when recurrent iritis is not the direct result of the combined irritation of posterior synechia and of a disturbance so slight or transient as in itself to be usually incapable of exciting deep inflammation, it is very often induced by the action upon the iris of a specific irritant, such as the virus, whatever that may be, of syphilis or rheumatism. I can see no valid reason for assuming that recurrent iritis and choroiditis, when associated or single, and occurring in a rheumatic, gouty or syphilitic patient, are not each caused by the same constitutional irritant.

I by no means deny that there are cases of recurrent iritis, where the inflammation of the iris appears to be an extension of an acute, or an exacerbation of a chronic inflammation of the deeper portions of the uveal tract.

But Dr. Risley seems to be of the opinion that such is the customary origin of recurrent iritis. It is on this point, then, that I differ from him. Moreover, the author, reasoning from his view of the usual course of recurrent iritis, arrives at the conclusion that adhesions of the pupillary margin of the iris and the adjoining capsule of the lens, so long as the whole pupillary border of the iris is not bound down and the communication of the anterior and posterior chambers of the eye thus closed are comparatively insignificant matters and should ordinarily occasion little or no apprehension. Here again I must differ from him, and still more positively than before.

I regard it as all-important in the treatment of primary iritis to guard most carefully against the formation of posterior synechia. Furthermore, I consider it important, after the second attack has established the recurrent nature of the malady, and at a favorable moment, to carefully separate the synechiæ if they are not too extensive, or, in the latter case, to remove a portion of the iris by iridectomy.

Recurrent iritis after synechia is sure in time to bring about complete occlusion of the pupil, a condition which, unless remedied by operation, is certain to prove most disastrous. In order to remove the constant irritation of the iris, caused by one or more bonds of adhesion to the lens, and, still more important, to remove as far as possible the risk of subsequent complete occlusion of the pupil, I do not hesitate to advise the separation, at a proper moment, of slight adhesions, or the performance of an iridectomy if they are very extensive.

I am very well aware that occasionally (rarely indeed) the capsule of the crystalline lens, at the point of attachment, may be torn in the effort to detach the synechiæ and traumatic cataract be established. But the danger is, I think, so small in comparison to the danger that the eye may be ultimately destroyed if the synechiæ be left to themselves, that it is, as a rule, safer to follow the practice of removing synechiæ when recurrent iritis is once confirmed. Of course the presence of a constitutional irritant greatly complicates this problem. In the cases, which I believe are comparatively rare, of recurrent iritis by extension of inflammation from the choroid or ciliary body, it is possible that the best procedure would be to leave posterior synechiæ alone so long as they are not complete, and do not occlude the pupil.

Dr. Little.—Dr. Risley's paper is very important and suggestive, for the early recognition of iritis and its proper treatment prevent or mitigate the serious results that follow in eyes thus affected.

The vascular tissues of the eye, composed of choroid, ciliary body and iris, are to be considered as one, and to say that inflammation is limited to only one part of it is difficult.

The treatment is largely mechanical, that is the whole tissue when inflamed should be made free from muscular action; the iris dilated so no adhesions occur; the ciliary muscle and choroid likewise passive, so as not to damage the retina or vitreous; after subsidence of the inflammatory processes, if optical defects exist they should be corrected, so as to pre-

vent recurrent attacks from irritation and congestion that exist in the tissue when optical defects exist, for the effort at seeing produces trouble in these cases, and gives a foothold in a congested tissue for the constitutional taint, specific, rheumatic or otherwise; mere exposure will produce the same result. The constitutional treatment is more effective in eyes free from strain and nominally vascularized.

As to the use of eserine in iritis, while a few years ago it was considered courageous to use it, in certain cases it acts well, care being taken to guard against adhesion by using atropia at stated times to prevent its adhesion; in cases where the adhesion already exists, it works well in relieving pain, but in the average case of iritis, atropia must be looked upon as the only treatment locally.

Dr. Risley's suggestion and good effect he had with eserine in a case of sympathetic iritis while suggestive and contributory to advance in therapeutics of this disease, cannot yet be looked upon as a preventive of sympathetic inflammation of the eye, no more than eserine can be claimed as a permanent method of cure for glaucoma by its use.

The presence of hyalitis in these severe cases of iritis, preventing a view of the fundus of the eye, can be helped or cleared up to some extent by the use of electricity, so that changes in the retina or choroid can be recognized.

Opinions as to operative procedure differ in these severe types of iritis; it is better to wait till severe symptoms subside or disappear, and yet some cases do well by immediate operation; not enough such cases have been reported in comparison with those that have had no operation, for any judgment or statistics to be grounded; personal experience gives different opinions to observers.

Dr. L. Webster Fox.—I rise to give the clinical history of a case of recurrent iritis, ending in sympathetic ophthalmia. Eighteen months ago I was asked, in consultation, to see a patient who had had several attacks of iritis in the right eye.

Mrs. E., age 33, married, well developed, with an irrelevant family history, always enjoyed good health and normal vision. The family physician three months previously was called to see the patient, who was suffering with pain in the eye-ball, accompanied by supra- and infra-orbital pain, a marked ciliary zone of congested blood-vessels, a discolored iris which was sluggish and vision blurred. Atropia solution, grs. iv to ℥ i, one drop every two hours, and internal medication of calomel was given. The disease responded rapidly to the treatment; the eye regained its normal color with full acuity of vision; three weeks subsequently a second attack came on, which was again promptly treated with good results. Nine weeks after the second attack, a third was ushered in with very severe pain over the brow down the track of the infra-orbital nerve, congestion of the sclerotic vessels, with a deeper pink zone of ciliary blood vessels, musty brown iris and hazy vitreous, with vision reduced to $\frac{20}{200}$; other than the hazy vitreous no lesion in the fundus could be seen. The following treatment was instituted: Atropiæ sulph., gr. iv to ℥ i one drop in eye every 3 hours; internally, hydrarg. chlor. mit., grs. ii, guarded by pulv. opii, gr. ½ twice daily, and four leeches to temple. The patient improved, and untoward symptoms passed off. The left eye was examined with the ophthalmoscope, and found normal, excepting slight degree of hypermetrohic astigmatism. The eye (right) remained quiet for about two months, when another attack came on more violent and aggravated in its symptoms. Upon instilling the atropia solution, it was found that posterior synechia had taken place, the pupil only responding to the mydriatic in the upper and outer quadrant, possibly to one-sixth its diameter. The media, which had regained their transparency, were hazy (vitreous), obscuring the details of fundus. The vision had fallen to counting fingers at eight feet. In addition to the calomel and opium, a mixture of hydrarg. bichlor., gr. $\frac{1}{48}$, pot. iod., grs. xx, in water three times daily, was given; this treatment was continued till permanent salivation had taken place, which was in six to eight days; the hydrarg. was discontinued, but pot. iod. given as usual.

In two weeks the inflammatory condition commenced to pass off, but vision was reduced to qualitative perception only. After the inflammatory conditions of the eye had disappeared (four weeks after the beginning of the last attack), the patient was suddenly taken with great pains in back of head and at times nausea; these pains became so intolerable that the patient had to be kept under the influence of a hypnotic for several days at a time, this condition lasting off and on for four weeks, at the end of which time paresis of rectus externus of right eye manifested itself; there was convergent strabismus with diplopia, but no hemiopia could be elicited; the patient at this time answered questions intelligently; a careful examination of the right eye revealed no change either in the irregular shape of the pupil or in the haziness of the vitreous. In the left eye, however, a marked change had taken place; owing to the condition of the patient, it was impossible to make an ophthalmoscopic examination of this eye for four weeks. Well marked keratitis possetates on Descemet's membrane, iris musty brown, vitreous slightly hazy (?), swelling of the optic

nerve, arteries lessened in calibre, veins full but not tortuous, their reflex gone, several small spots of choroiditis scattered about the equator of the eye, the eye presenting a perfect picture of inflammation of the uveal tract. The urine was examined, no sugar nor albumen found. Medication was pushed till pronounced salivation and iodism made their appearance; notwithstanding this treatment the eye (sympathizing) continued to grow worse until qualitative perception of light only remained (the paresis of the rectus muscle impressed). The vitreous became so filled with inflammatory products that it was impossible to make observations of the change that was going on in and about the optic nerve and choroid.

The last attack of iritis in the left eye was four months ago, when the eye suddenly became painful and exceedingly sensitive to light, this attack lasting three days, the patient having been under constant medication (pot. iod.); leeches to the temple seemed to relieve the extraordinary condition at once. The patient is still under observation, and at last examination the vision in right eye (primarily affected) was found to be $\frac{5}{200}$, at one time qualitative perception only; in left eye (sympathizing eye) qualitative perception only. I may state that this is the first case of sympathetic ophthalmia due to recurrent iritis, that I have ever seen, although I had the opportunity of seeing many cases of recurrent iritis while clinical assistant and house surgeon at Moorfields Eye Hospital, London.

Operative interference was the method adopted at the above-named institution to protect the patient from recurrent attacks. This was done by excising part of the iris. Mr. Streatfield, at rare intervals performing this operation of separation of the synechia from the anterior capsule of the lens. The iridectomy was performed at such time when it was supposed that the iris was free from inflammation. An operation may be done with safety in from four to five months after the last attack of iritis.

Dr. Risley, closing the discussion, said: I quite agree with Dr. Shakespeare in his estimate of the importance of systemic conditions in this disease. Not only is syphilitic disease, the rheumatic or gouty diatheses, frequent causes of idiopathic iritis, but doubtless exert a marked influence in sustaining the pathological conditions involving the entire choroidal tract, as a sequel of the acute iritis. But for these diatheses, many acute cases which are followed by chronic iritis, would have returned to a state of health. It was not my desire to underestimate the importance of the iritic attachment, but to point out that as a factor in the production of recurrent iritis, it had been overestimated.

If the views I have expressed are true, it renders less justifiable the operations for their detachment, *e. g.*, that devised by Streatfield, gently tearing them away by means of a blunt hook, which he inserted between the iris and lens capsule, or the Passavant operation, which consisted in grasping the iris at the point of attachment with forceps, and by traction detaching the adhesion. If the attachments are not so deleterious as was supposed, the risk following these operations is not to be justified.

I have no doubt but that an eye constantly in a state of retino-choroidal irritation, in low grades of inflammation, as the result of strain in overcoming a hypermetropia or astigmatism, is more ready to take on all forms of disease, and may, therefore, as Dr. Little very fitly suggested, be more liable to iritis. Certainly, once attacked by iritis, such an eye would be more prone to disease of the choroidal tract and chronic or recurring iritis.

It was not my wish to present eserine as a panacea, or even as a usual remedy to be employed in the treatment of sympathetic disease, but I reported the case in my paper as a clinical fact the design being to set forth the value of this drug in improving the nutrition of chronically inflamed eye-balls prone to set up sympathetic irritation, especially where there is increased tension of the offending ball.

I have had no experience in the use of electricity as an agent for hastening the absorption of vitreous opacities. Ophthalmologists, I am sure, would hail with pleasure any safe method which would accomplish a result so desirable. I should, however, use with great caution an agent, the powers of which are so imperfectly understood in any eye with an inflamed retina and choroid.

Dr. Fox has presented a very interesting history in his case of serous iritis, followed by sympathetic irritation. Such cases seem to shed light upon the vexed problem of the pathology of irritation. One of the most interesting and important contributions, to our knowledge, of the subject, is that by Max Knies (Vid. Archiv. Ophthal.,vol. ix, page 125, N. Y.). In the case, the pathological histology of which he has so carefully presented, the disease had been apparently transmitted by the way of the optic nerves. The reported cases of sympathetic neuroretinitis are getting more numerous, and it would seem that ere long we shall have to relinquish the term *sympathetic*—certainly for very many cases of disease communicated to the fellow eye—for some name which shall indicate its true pathology.

Regarding the time after the iritic disease, when it is proper to perform iridectomy, I would remark that the symptoms in the individual case are probably the true guide for operative interference.

PATHOLOGICAL SOCIETY OF PHILADELPHIA.

STATED MEETING HELD JUNE 12, 1884.

(*Specially reported for Md. Med. Journal.*)

The President, Dr. Tyson, in the Chair.

Sarcoma of Testicle.—Presented by *Dr. G. de Schweinitz.* A. K., aged 43, a native of Germany, married, presented himself May 22nd in the Surgical Dispensary of the University Hospital, for an opinion concerning a tumor of the left testicle with which he was suffering. His general health had always been good until one year ago when he first noted a beginning globular swelling of the left testis. A short time previous to this he had suffered with gonorrhœa, which was followed by an attack of orchitis. He knew of no member of his family that had ever been afflicted with any form of morbid growth. Examination revealed a very large, somewhat pear-shaped growth of the left testicle, over which the skin was freely movable. The veins were much enlarged. The inguinal glands of the left side were also involved and the thigh and leg of that side swollen from œdema. Above the line of Poupart's ligament both palpation and percussion revealed another mass situated in the left iliac fossa. A very unfavorable prognosis was given and operative interference not advised. He, however, earnestly begged for the removal of the tumor of the testicle which caused him severe dragging pain and incommoded him in walking. The dangers of the operation and the fact that it would at best only be partially palliative were explained to him, and as he still asked for its performance, the growth was removed. The case progressed very well for a few days when he died rather suddenly. Dr. Hughes and myself made the post-mortem examination and found the following conditions: Lungs showed commencing phthisis of apex, left pleural sac occupied by a pint of serum in which floated some flakes of recent lymph. Heart normal, cavities occupied by post-mortem clots. Liver very fatty, right kidney apparently normal. The retroperitoneal glands were all converted into a huge sarcomatous mass, as were also the glands and tissues of the left iliac region and from there the growth passed up to the lumbar region and surrounded, although apparently did not greatly involve the kidney. Upon cutting into the tumor of the testicle, about a pint of bloody serum escaped from the cavity of the tunica vaginalis. The growth occupies the body of the testis, is soft and flexible, in places breaking down and the cavities thus formed filled with semi-fluid contents. The growth has burst through the tunica albuginea, thus showing the first step in the march of this morbid process up the spermatic cord, into the abdominal cavity, to the retro-peritoneal glands and other tissues involved by the disease.

Microscopically, the tumor is a sarcoma composed of round and spindle cells which are in relation to the remnants connective tissue stroma. A very distinct tendency to alveolar arrangement is observable in places. It would probably be classed by some pathologists as an endothelial carcinoma or carcinomatous sarcoma.

Dr. Shakespeare said that the history of this case, the post-mortem finding and the microscopic examination, forcibly reminded him of the last discussion by this society of the same subject. In this case the disease has evidently traveled along the deep lymphatics as far as the retroperitoneal lymph glands of the lumbar region. In this particular it has followed the course of systematic infection pursued by a carcinoma rather than a sarcoma. But it seems to be now well established that the well-known law governing the generalization of sarcomata meets with frequent exceptions in the case of so-called sarcoma of the testicle. Dr. de Schweinitz had spoken of the presence in this tumor of an alveolar structure, and in truth the manner in which the growth had exceeded the bounds of the testicle, brings to mind at once the history of an alveolar sarcoma. The reporter had spoken of this tumor as "an endothelial sarcoma." Dr. Shakespeare objected to this use of the term "endothelial," and thought that the tumor in question would be more properly defined as "an alveolar sarcoma." He thought that the term "endothelial" was most commonly applied to carcinomata of certain kinds rather than to sarcomata, and did not think that the tumor named by Klebs "an endothelial carcinoma" differed from other genuine carcinomata in the form or nature of its cells and alveolar structure, but only in the fact that it may originate or be propagated in the lymph spaces or channels. If the term "endothelial" be insisted upon in this case, why not call the growth "endothelial carcinoma"? This naturally raises the question of pathogenesis. We are told that the testicle is a derivation of the mesoblast. If this be true, here is ground for

debate as to the proper name to give a tumor of the testicle, which has an alveolar structure and a clinical history analogous to that of true carcinoma. He who believes that true carcinoma never has a real connective tissue origin will not consent to call such a growth of the testicle a carcinoma unless he can satisfy himself that, by some chance, a few epithelial cells from the blastoderm have become misplaced in the process of development, and have remained here to form a nidus of a future carcinoma. Malignant tumors of the testicle seem to occupy an anomalous position. They are called sarcomata in the main, and yet as a rule their clinical history does not correspond to the sharp outlines which comprise this class of tumors in other localities. On the whole Dr. Shakespeare was inclined to agree with those writers who accepted in general a connective tissue origin for true carcinoma in contradistinction to the epithelial origin of true epitheliomata, and therefore saw no well grounded objection to applying the name of true "carcinoma" to those growths of the testicle which present a typical clinical history and anatomical structure of carcinoma, although they may spring from connective tissue. As bearing upon the subject of pathogenesis of carcinoma he referred to the observations of a few authors who deny the epithelial origin of some glandular structures, mentioning in particular the opinion of Creighton, who, after a careful and extensive series of observations on the development and inoculation of the mamma, concluded that the acini of this gland are not developed from the cutaneous epithelium but are derived from the connective tissue.

CARCINOMA VENTRICULI.—Presented by *Dr. J. C. Wilson.*—The specimen was removed from the body of A. C., aged 58 years, a native of Ireland and a washerwoman by occupation, who was admitted to the Philadelphia Hospital, March 6th and died June 2, 1884

The symptoms of the disease first attracted the patient's attention six months before her admission to the hospital, and were indigestion, flatulence, acid vomiting at intervals, constipation of obstinate character and later starvation signs, wasting, extreme pallor, a dull muddy skin and great feebleness.

About the time of her admission a small, hard, oblong tumor made its appeerance to the right of the median line just above the navel. This tumor was movable but not the seat of pain.

In fact pain was rarely present. Death resulted from exhaustion. Upon post-mortem examination the stomach was found to be greatly dilated, extending down almost to the pubes. A cancerous mass was evident from the serous surface, presenting a nodule about the size of a hen's egg. Upon section, the pylorus was found to be very much contracted from the new growth, which was a scirrhous cancer undergoing colloid change. The mucous membrane of the stomach showed numerous ecchymoses of varying extent and the changes due to chronic catarrhal gastritis. No metastases to other organs could be discovered, and the lymphatic glands were not enlarged. The organs were all much atrophied, otherwise normal. Slides showing the microscopic appearance of the tumor were exhibited.

ANEURISM OF THE LEFT VENTRICLE COMMUNICATING WITH THE AORTA.—Presented by *W. E. Hughes.* T. C., white, æt. 39 years, a ship-carpenter, was admitted to the University Hospital under the care of Dr. E. T. Bruen, March 6th. He had always worked hard, been much exposed to weather, was a fairly temperate man, and had never had syphilis. He had had several slight attacks of articular rheumatism, but during none of these attacks had there been any symptoms referable to the heart. There was nothing of moment in the family history. Three years ago his strength, which had never been excessive, failed somewhat and it became impossible for him to work constantly. Previous to this, while he had never been very robust, he had yet been able to work regularly. There was with the failure of strength more or less dyspnœa on exertion, with a tendency to take cold on any slight exposure, but no pain over the heart and very little palpitation. Six months ago he was very much exposed and since then has been much worse, palpitation now, for the first time, becoming troublesome. When first seen the slightest exertion caused the most intense dyspnœa and very annoying palpitation, his hands and face were congested, and his lungs filled with moist râles. The apex beat of the heart was in the fifth interspace in the nipple line, its action strong and heaving. Over the aortic cartilage could be heard a strong, blowing double murmur. He died April 6th of gradually increasing dyspnœa, due apparently to congestion of the lungs. He had never complained of pain in the heart. There had been no œdema. *Autopsy,* by Dr. Barber, six hours after death. Pericardium normal; heart large, its left ventricle moderately hypertrophied and dilated, right normal; muscular tissue apparently normal. Between the posterior leaflets of the aortic valve was an oblong opening with smooth, rounded edges extending one-quarter of an inch above the point of juncture of the leaflets into the aorta, and one-half of an inch below into the wall of the left ventricle, much wider in the ventricular than in the aortic wall. This opening prevented the approximation of the leaflets, holding them at

least one-quarter of an inch apart and permitting free regurgitation of blood into the ventricle. The leaflets were attached along the opening, in fact above they formed its edges. This opening led back into a cavity about as large as a walnut, lying between the base of the aorta and the upper part of the left ventricle on the one hand, and the right auricle on the other, bulging decidedly into both auricle and aorta. Its lining membrane was continuous with the endocardium and was thickened and roughened but not calcareous. The endothelium of the posterior wall of the aorta covering the projection was also somewhat thickened and roughened. Between the upper part of the sac and the aorta, where the separating tissue was very thin, composed apparently of only two layers of endothelium, there was an irregular tear permitting free intercommunication between the sac and the aorta; between this tear and the upper margin of the opening described above was a bridge of firm aorta tissue. The endothelium of the right auricle over the sac was rough and thickened. The wall of the sac was formed of connective tissue and endothelium; it contained only some recent coagula, none that were laminated. The coronary artery arose immediately above the sac and was not involved in it. The leaflets of the aortic valve were perfectly healthy. Other valves normal. The endothelium of the heart showed no spots of degeneration except that mentioned in the right auricle. The aorta above the sac, as well as the coronary arteries, was not in the slightest degree atheromatous. Both sides of the heart contained some chicken-fat clots. Lungs deeply congested. Other organs normal.

Aneurisms of the Aorta.—Empyema. —Presented by *W. E. Hughes*. J. H., white, æt. 35 years, a shoemaker, was admitted to the University Hospital under the care of Dr. E. T. Bruen, December 26th, 1883. He has used alcohol decidedly to excess, but has never been much exposed to weather, and has never done any hard work. There is no history of venereal disease. There is a distinct rheumatic family history of rheumatism, and he himself had had a year ago, acute articular rheumatism; since then he has had occasional fugitive pains, principally in bad weather. Fifteen months ago he caught cold and soon after began to feel slight pain along the crest of the left ilium. The pain increased for four days, when it had become almost unendurable, and extended from the left loin along the crest of the ilium into the groin; his urine was passed frequently and painlessly in small quantities and contained no blood. The pain was ameliorated by treatment, but not wholly removed, though there was not enough to keep him from following his usual occupation; it was almost invariably aggravated by damp weather and was not decidedly influenced by motion. Twice since then he has had paroxysms of severe pain and each time, after taking a mixture containing oil of turpentine, urination has been frequent and painful and the urine has contained blood. For the last two months he has had more or less stitch-like pain at the base of the left chest, and a hacking cough. His general health has been failing only slightly, he thinks he has lost about ten pounds of flesh. On admission his face was pinched and anxious; his breathing rapid and shallow, with intense pain at the base of the left lung. Physical examination showed friction sounds at the base of the left lung, with evidences of a small amount of fluid in the left pleural cavity, collected posteriorly; the respiratory murmur over the upper part of the left lung was not quite so distinct as that over the right. The apex beat of the heart was not ascertainable with certainty but seemed to be a little outside the normal point, the sounds at the apex were indistinct and synchronously with the systole was a rubbing sound, heard only during inspiration. Toward the base of the heart was developed a harsh systolic murmur, best heard over the upper bone of the sternum, conducted feebly into the carotids, and not heard posteriorly. The heart action was too strong, the whole præcordium heaving. The normal area of aortic dulness over the upper bone of the sternum was somewhat widened. He complained of a constant dull pain running from the left loin along the crest of the ilium. Urination was normal and the urine contained no abnormal constituents. Under the use of salicylate of sodium the pleuritic pain was quickly relieved—the lumbar pain completely disappeared after a course of alkaline diuretics. The fluid in the left pleural cavity slowly increased for awhile, then remained stationary till one week before his death, when there was a rapid increase. The pleural friction sounds came and went. The friction sounds heard over the heart were even more variable, sometimes systolic, sometimes double, occasionally dependent on the respiration and again occurring regularly with every beat of the heart. Gradually to the left of the sternum in the second and third interspaces a new centre of pulsation developed, apparently distinct from the cardiac impulse, and over this area resonance was impaired. Two months after he was first seen, a systolic murmur was detected about the middle of the posterior border of the left scapula distinct from the murmur heard anteriorly. Coincidently with the development of these conditions there was a steady decrease in the amount of air passing

into and out of the left lung; there was no other pressure symptom. For a month before he died he had irregular rises of temperature, with profuse perspiration, and lost flesh rapidly. April 22d, Dr. Wharton introduced a tube into the left pleural cavity, through which a large amount of sero-pus drained off. He died April 27th. *Autopsy* 24 hours after death. Body much emaciated. In the sixth interspace one inch anteriorly to the mid-axillary line is an opening leading directly into the left pleural cavity, which is filled forward to the anterior axillary line and upward to the spine of the scapula with a sero-purulent liquid surrounded by walls covered with a pyogenic membrane. The lung occupies the remainder of the pleural cavity and is everywhere closely adherent; it is compressed, the fibrous tissue is increased, and there is slight catarrh of the bronchial mucous membrane. The pericardium is dotted with scattered patches of recent lymph and its cavity contained three ounces of flakey serum. The heart is somewhat enlarged, the valves perfectly normal. The aorta is dilated, its endothelium proliferated, roughened and in places calcareous. Springing from the arch posteriorly to the origins of the left carotid and subclavian arteries is an aneurism the size of a filbert, extending back into the connective tissue to the left of the trachea. At the end of the descending part of the arch is another aneurism as large as a peach, springing from the right posterior surface of the aorta, eroding the anterior face of the bodies of the fifth, sixth, and seventh dorsal vertebræ, pressing forward and almost occluding the left bronchus. It has ulcerated through the wall of the bronchus, but exudation of blood has been prevented by a firm laminated clot which fills this opening. There was no pressure on the œsophagus nor on nerves. At the origin of the cœliac axis is another aneurism half as large, pretty well filled with laminated clots. Kidneys and other organs healthy.

PROCEEDINGS OF THE MEDICAL SOCIETY, DISTRICT OF COLUMBIA.

SPECIAL MEETING HELD JUNE 4, 1884.

(*Specially reported for Md. Med. Journal.*)

The Society met with the President, Dr. Garnett, in the Chair, Dr. McArdle, Secretary.

Two Cases of Stone in the Bladder in Old Men. Reported by *Dr. J. Ford Thompson.* These two cases, said the doctor, bring out clearly the different points of lithotomy and lithotrity. Lithotomy, as practised years ago, is now nearly obsolete and the time will soon come when it will be a still rarer exception.

In children it will always be selected, and there may occasionally be reasons which will induce the surgeon to perform it in the adult.

In one of my cases this operation was rendered necessary because lithotomy was impracticable.

Whilst in acute cystitis it would be better to postpone the operation; when that condition becomes chronic it often so contracts the bladder as to render the use of lithotrite impossible.

Many surgeons will for a long time prefer litbotomy as it is simpler and requires less skill. Dr. Thompson had seen men of world-wide reputation perform lithotomy well, whilst they bungled at lithotrity.

The latter operation requires great delicacy in the introduction of instrumen's, in grasping the calculus and in crushing it.

Both of the cases which he would report occurred in the practice of Dr. H. D. Fry.

The first case Dr. Thompson saw in January last. He had suffered from stone in the bladder and cystitis for ten or twelve years

Within a year or two a lithotrite had been introduced and afterwards the patient passed small calculi. This was the case which gave rise to the discussion of spontaneous intravesical fracture of calculi before the Surgical Section of the American Medical Association at its recent meeting.

A couple of months before Dr. Thompson saw him a lithotrite had been introduced; nothing was taken away and nothing passed afterwards. When the patient came under the care of Dr. Fry that gentleman introduced a sound and discovered the presence of a culculus. He then called Dr. Thompson in consultation.

The patient was a fat, flabby man. He was passing urine night and day, almost all the time in great pain.

The bladder was injected but scarcely any fluid would be retained. A lithotrite was introduced but could be opened only a few lines.

The difficulties were explained to the family and the dangers of lithotomy were discussed. At the end of two weeks the patient was anxious for any chance. With this understanding the 30th of January was appointed for the operation.

Drs. Fry, C. E. Hagner, W. W. Johnston, Triplett and McArdle were present.

Ether was given and the bladder injected with water. As that viscus was found to be contracted to about the size of a walnut, lithotrity was out of question, so I proceeded to perform lithotomy.

The perineum was the thickest I have ever seen. The handle of the knife was almost buried out of sight.

Believing the stone to be small I decided on

the median operation. He took ether well. There was scarcely any hemorrhage. I introduced the forceps and brought away four stones. One was broken into two parts during extraction. The bladder was washed out and the patient remained comfortable for several hours. The operation was performed at eleven o'clock in the morning. At four o'clock a chill occurred. It was thought to be urethral. The temperature continued to ascend until it became quite high and the man dropped into a quasi-apoplectic state. Coma persisted and in a week he died.

There is no question as the operation selected; but should any operation have been attempted? I have no hesitancy in saying that I should operate again under the same circumstances. No hope could be offered by local or general treatment. It is true his general condition was bad and he had given evidence of cerebral disturbance. The chill may have been urethral, and yet ether might have caused his death. Undoubtedly his arteries were atheromatous.

If he could have been operated on without an anæsthetic his chances would have been better.

The other case was a man of seventy. I saw him with Dr. Fry about four weeks ago. I slit his meatus and introduced a No. 31 sound without difficulty.

He had an epididymitis of the left side, owing to the use of instruments, his son being accustomed to wash out his bladder.

This man had suffered with cystitis for two years. He was getting worse, and was compelled to urinate very frequently. He could not lie in bed in any other position than on his back. Although he could only retain a small quantity of fluid, I decided on litholapaxy. Drs. Fry, W. W. Johnston, Lincoln, C. E. Hagner and McArdle were present.

With Bigelow's lithotrite the stone was grasped and crushed; towards the end of the operation I used Thompson's smaller instrument. I also used Thompson's evacutor. The operation lasted fifty-five minutes. What was saved of the stone weighed four hundred and thirty-five grains.

The patient came from under the anæsthetic and rallied rapidly. He now passes his urine as if there had never been anything the matter with him.

Dr. Taylor asked as to the relative merits of lithotomy and lithotrity. Would like to know if in old cases of cystitis in old men crushing would not be more dangerous than cutting. The retention of any particles would increase the difficulty.

Dr. Garnett had seen two cases of lithotrity. Although chloroform and ether were used in combination and the patient completely anæsthetized, every time water was thrown into the bladder a tremor passed over the patient's frame.

Although he agreed in considering it the more eligible operation in adults, still there could be no denying the amount of irritation of the lining membrane of the bladder by the continuous use of the lithotrite. Without doubt the old operation caused less irritation.

Dr. Mackall said in regard to the first case reported, the question of interest was as to whether any operation should have been performed.

Although Dr. Thompson says the urine was examined before the operation, still the kidneys might have been diseased without the presence of albumen being detected in the urine. Coma would point to uræmic poisoning. Such being the case, would an operation be deemed justifiable? It was an unfortunate error, not having an autopsy.

Dr. Thompson considered lithotrity by far the better operation when the stone could be caught and crushed. Sometimes, however, the stone is encysted or sacculated. This is principally the case in cystitis of long standing.

Lithotomy will still be practised on children until more delicate instruments are devised. The statistics of Sir Henry Thompson, and of Guy's Hospital in London, and of the leading surgeons in this country, show the great value of the operation of lithotrity. Indeed, America has devised nothing of which she has more reason to be proud. There is scarcely a prominent man in Europe who does not perform it by preference.

Dr. Reyburn had seen a man of fifty operated on by lithotrity without an anæsthetic. The supra-pubic operation has been devised for those cases where the calculus is so large as to fill the cavity of the bladder.

Dr. Mackall asked if there were not some cases in which no operation would be justifiable. If so, what measures can the physician use.

Dr. Thompson knew of no medicine that would avail anything, and he saw no reason why any man should be allowed to die

without an effort being made to relieve him by some operation.

Dr. Reyburn desired to know if it would not be well to perform the supra-pubic operation in cases of malignant disease of the bladder.

Dr. Fry wished to call the attention of physicians to the necessity of examining the bladders of old people suffering from troubles of the urinary organs. In the second case reported, he had been misled for some time, thinking he had only an enlarged prostate to deal with, until he introduced a sound and found the calculus.

Editorial.

Cholera in Europe.—Telegraphic communications from Europe bring information of the outbreak of Asiatic Cholera in Toulon, and of its spread to Marseilles. Southern France is alarmed by the appearance of this Asiatic pest, and this alarm is spreading throughout European countries. Up to the present time the number of cases is comparatively small, so that there can be no just cause for any dread of a general epidemic. The few cases reported have called attention to the fact that this disease may suddenly invade any locality and that its outbreak at any point is not an improbability when the conditions favorable to its development exist. The sudden outbreak of the disease in Southern France will not be without its value to other sections of the country, if the important lesson which it teaches is kept in view and acted upon. Cholera is one of the few diseases which can be summarily arrested if proper measures of qnarantine and sanitation are practiced. The other cities of France and of the remainder of Europe have recognized the importance of these two agencies and have instituted vigorous quarantine as well as vigorous sanitary regulations. The State Department at Washington is taking every precaution against the importation of the disease into the United States. These measures upon the part of the national authorities are wise enough, but we doubt whether they can be made thoroughly efficient. It seems to us an important duty devolves upon the municipal authorities of all of the American seaport cities. This duty is in enforcing better sanitary regulations than are usually observed during the summer season. Cleanliness is the great enemy of epidemic diseases. We have reason to believe that this measure alone is sufficient to keep back the invasion of all epidemics if it could be thoroughly and vigorously employed. It may be well enough to institute measures of quarantine against the importation of the germs of disease from other countries, but it must be admitted that quarantine regulations can never be thoroughly protective against such invasions. House cleanliness, street cleanliness, and an abundance of pure water for washing and drinking purposes, are the safest agencies to be employed and most implicitly relied on in combatting all forms of disease of an epidemic character. Fortunately these agencies are the easiest to command when the authorities in charge of municipal health boards are energetic in calling them into play. The Atlantic seaports have as a rule an abundant water supply, which gives them a most efficient means of enforcing street and house cleanliness. This fact certainly can be urged in favor of this city. With a water supply equal to a population of 2,000,000 people, there need be little excuse for the exercise of economy in flooding and cleaning our streets during the heated term. Whilst cholera is venting its rage upon the inhabitants of Toulon and Marseilles, it may be well enough for our City Hall authorities to begin a system of sanitation which will effectually provide against any possible chance of its outbreak in our midst.

Syphilis and Vaccination.—A philantrophic English physician, by the name of Dr. Cory, has recently conducted a series of experiments upon himself, which must set at rest the long debated question whether syphilis can be transmitted by vaccine lymph. Dr. Cory made a practical test of the question by vaccinating himself with lymph taken from syphilitic subjects. After three unsuccessful attempts to inoculate himself with syphilis, he succeeded in the fourth. In the first case the lymph was taken from a child having hereditary syphilis. Vaccination was successful but no sign of syphilis followed. In the second instance the child had a coppery eruption and vaccination was unsuccessful. In the third child syphilitic symptoms were disappearing under mercurial treatment and the vaccination failed. In the fourth case the child was in an active stage of the disease with an eruption and sores. Vaccination did not succeed, but a papular syphilide showed itself on the twenty-first day at the seat of inoculation and second-

ary eruption soon appeared. These experiments of Dr. Cory were investigated by a government sanitary committee, which report that the result of the fourth experiment shows "that it is possible to communicate syphilis by vaccination from a vaccine vesicle on a syphilitic person, even if no blood be used."

Whilst much credit is due to Dr. Cory for sacrificing himself in this manner to the cause of science we much doubt whether his experiments will accomplish any great amount of practical good. The scientific world has generally held the opinion that syphilis was transmissible by inoculation with vaccine lymph, numerous observations having confirmed this fact. Dr. C.'s experiments go to show that syphilis is not easily transmitted unless the lymph is removed from a child in the active stage of the disease. One important lesson is taught by the experiment:—that it is the plain duty of every physician to exercise the utmost care in the use of vaccine virus and thus be sure of the purity of the source from which it is obtained. Perhaps the more important lesson taught is the greater necessity of using bovine lymph under all circumstances where doubt arises as to the purity of human virus.

Miscellany.

Transmission of Tuberculosis.—The presence of bacilli of tuberculosis in the blood, in chronic tuberculosis, has a bearing upon hereditary transmission of tuberculosis, and also upon its spread by vaccination. For if a bacillus can reach the innermost tissues of the economy, why may it not travel also from the blood of the mother to that of the embryo? Why, too, may it not be transferred with the vaccine lymph? The possibility of either event dare not be denied, if Koch's views be acknowledged. At the same time, even admitting such possibility, it is plain that the chances of such an accident are so few, that we need not be influenced in our practice as to vaccination; while natural difficulties in the way of transmission from the blood of the mother to that of the embryo account for the frequency with which the children of tubercular parents escape the malady.

In like manner, it is a legitimate result of these facts, that it is not venereal disease alone which may be communicated from the male to the female in coitus. The man with tuberculosis of the seminal vesicles and urethra may inoculate the woman with whom he has intercourse, and thus produce a tuberculosis of the uterus and Fallopian tubes. Weichselbaum tells us of a case of tuberculosis of the seminal vesicles and urethra, in which the number of bacilli was enormous. A seminal fluid in such cases would naturally be loaded with bacilli; which, carried up into the cavity of the uterus, might plant themselves in such favorable nidus as happens to be present. It is fortunate, in view of these facts, that tuberculosis of the genital apparatus of the male is as rare as it is, else we would find such mode of transmission more frequent. In the meantime it behooves practical physicians to bear these views in mind and apply to them the test of experience and observation.—*Medical News.*

A Case of Tubal Pregnancy is recorded in the *Bost. Med. and Surg. Journ.* (Jan. 10). The patient was healthy, aged 32, married two years, and had a normal confinement eleven months before this illness. The symptoms were sudden and severe. At 4 P. M. she experienced pain in the right ovarian region, with faintness and vomiting; at 7 P. M. there was a collapse, and she died four hours later. At the autopsy the abdominal cavity was found filled with blood. There was a rupture of the right Fallopian tube, within which lay the fœtus. The fœtal head presented at the opening, which was about the sise of a three-cent silver piece. The following points were noted: The thinned edges at the site of rupture; the decidua in the uterine cavity; the partially developed placenta, and the chorion villi in process of atrophy; the corpus luteum in the ovary of the opposite side.

An Overdose of Chloral During Parturition.—To a young and healthy patient, in her third labor, one hundred grains of chloral hydrate were given, in divided doses, in the course of forty-five minutes, in mistake for three doses of fifteen grains each. The patient became heavy and drowsy, but could be temporarily roused; the pulse was between sixty and seventy per minute; the pains became slow and ineffective. Fifteen minutes after the administration of the last dose of chloral, the membranes were ruptured, and twenty-five minutes later the child was feebly expelled by natural efforts; it was excessively pale, but began to breathe and cry after moderate efforts on the part of the accoucheur, but the skin did not exhibit its natural color for several hours. The placenta soon followed the child. Two drachms of fluid extract of ergot were given, and half an ounce of brandy. An hour after the birth, the mother was in a fairly good condition, and both she and the child made a good recovery.—*Boston Med. and Surg. Journ.*, Feb. 14.

PEDIATRIC APHORISMS.—The following aphorisms of Professor Letanundi are quoted in *Le Dictanum* of May 10th, 1884:

1. Children are like the mob; they always complain with reason, although they cannot give the reason why they complain.

2. Always look at the lips of a pale and sickly child; if they are of a deep red color, beware of prescribing tonics internally. At the outset you will congratulate yourself, but in the long run will repent of having employed them.

3. As a general rule, a sad child has an encephalic lesion; a furious child, an abdominal one; a soporific child has both, though indistinctly defined.

4. An attendance on children produces in the mind of an observant physician the conviction that the half, at least, of adult transgressions are so through morbid abdominal influences.

5. A sunny living-room, a clean skin, and an ounce of castor oil in the cupboard, these are three great points of infantile hygiene.

6. To dispute the clinical value of tracheotomy in croup is a waste of time to no good purpose. Croup or no croup, if there be a positive obstruction to respiration in the larynx it is but according to reason to open a way for sublaryngeal respiration. In the days of more knowledge and less nonsence, tracheotomy will be ranked among the minor surgical operations.

7. Dentition is a true multiple pregnancy in which the uterus and its fœtuses become petrified in proportion as they grow. It is not the direct or eruptive pressure, but the lateral pressure of all together, that is most dangerous. It is from this that so many cerebral symptoms appear, which can in no way be relieved by incisions of the gums. The only recourse against the dangers of this transverse pressure is to give the child more nourishment, in the hope that as the general condition is bettered the local condition will also be improved.

8. If the incisors of the first dentition are serrated it is bad, but if those of the second formation are the same, it is worse. It foretells a number of lesions arising from deficiency of mineral salts in the tissues. There is only one exception, and it is an important one. When the serrated incisors are seen in strong children, in whom the fontanelles have closed early, it is a sign of a robust constitution. Instead of a number of small and sharp surations, there are a few large blunt ones.

9. To regard the eruption of the teeth as the sole factor in the general process known as the first dentition, is to perpetrate a sort of medical synecdoche. Children get their first teeth because they are at the same time getting a second stomach and second intestines.

10. The body of a child possesses such a degree of "acoustic transparency" that in cases of necessity or convenience auscultation may be practised with the hand, converting it into a telephone, which will reveal as much to the physician as even his ear could do.

11. In practice it is well to distinguish with precision a case in which disease is due to lumbricoids from one in which lumbricoids are due to disease.

For in the former case anthelmintics are of service, but in the latter they do harm.

12. Since, until a child is able to talk clearly, his relations with the physician are purely objective, it is very necessary that we should study as carefully as do the veterinarians the exact correspondence between the lesions and the expression of the patients.

13. If you wish to cure rapidly and well joint-diseases in infants, you must treat them as you would a conflagration—douches, douches and more douches, until you have succeeded in extinguishing them.

14. The entire system of the moral relations between children and adults should be changed. To speak to them incorrectly merely because they cannot pronounce well; to excite their fears and arouse their weird imagination simply because they are easily frightened and impressionable; to stimulate their vainty because they are naturally inclined to be vain; these and other similar actions are not only wrong, but absurd.

15. There is finally danger to the woman of contracting a vice as yet unregistered in the annals of concupiscence—mastomania, or the sensuality of nursing. When this physiological act degenerates into a vice, nursing becomes so frequent as to be nearly continuous, and the result is ruin to both mother and child. Finally, the physician must here, as always, be at once wise, discreet, of good judgment, and firm.—*The Medical Record.*

HOW TO PREPARE A 1 TO 1,000 SOLUTION OF CORROSIVE SUBLIMATE.—Sir Joseph Lister writes to the *British Medical Journal*, (May 24th, 1884), that one drachm by weight of a solution of one part of corrosive sublimate in one and a half parts of glycerine contains two-fifths its weight, or twenty-four grains of the sublimate. This, multiplied by 1,000 (the proportion of water required), gives 24,000 grains which is very nearly three pints. It is, however, much more convenient to use fluid measure than weight, and a fluid drachm of the glycerine solution referred to requires four pints of water to produce the 1 to 1,000 solution.—*Medical News.*

The Treatment of Lupus.—Believing that lupus is just as much a manifestation of scrofula as phthisis, or bone or gland disease, Mr. J. W. Taylor (*Birmingham Medical Review*) makes certain suggestions in accordance with that belief for the treatment of this disorder. The residence should be in a warm and dry climate, the house should be well ventilated, but free from draughts, out-door exercise should never be taken when the weather is cold and wet. The food should be good and varied. Cod-liver oil, when it can be taken, is strongly recommended, and Parrish's food has proved very useful. For local treatment Mr. Taylor recommends scraping with the curette in preference to caustics or scarification. It is best to attack a small part at a time, and remove the disease thoroughly; this treatment is best adapted to those cases where the new growth and ulceration proceed equally; when the latter is in excess, the disease generally gets well without any local remedy; when the former is in excess, free removal is the best treatment.—*London Med. Times.*

The Course of the Fever in Acute Croupous Pneumonia.—Silvestrini* dwells upon the somewhat neglected irregularity of the fever in acute pneumonia. The temperature, he thinks, practically does not, as a rule, adapt itself, to the classical three periods of the disease. There are cases of pneumonia which run their course in three days, others in much more; and the temperature follows in its behavior the various phases of the morbid process. The temperature-curve is irregular even in cases of frank pneumonia following a typical course; if the temperature be taken every two hours, oscillations are noticed which escape observation if the thermometer be only used twice a day. The author records cases in which objective examination and consideration of the thermic curve showed that rise of temperature always coincided with the appearance of a new pneumonic nucleus, and diminution or cessation of fever with the appearance of the signs of hepatization. At this moment when the exudation coagulates, a compression is produced between alveolus and alveolus, and arrest of the blood and lymphatic circulation, and hence absorption of the pyrogenic products of inflammation is prevented. Fever only accompanies the period of exudation, during which the absorption of the pyogenic prod ucts is facilitated; every elevation of temperature corresponds to a new invasion of the process, the pneumonia being considered as the union of so many pneumonic processes, which succeed one another with greater or less rapidity in different cases; and this succession of accesses goes *pari passu* with the oscillations of the thermic curve. The duration of the morbid process is short, the succession of anatomo-pathological periods rapid; but the nature of the process is to diffuse itself in other territories, where the same phenomena are developed, capable of producing the same manifestations. If the invasion take place quickly, there will be almost continuous fever; if slowly and interruptedly, the fever will have a more or less regularly intermittent type. If the pneumonia invade one tract only of the lung, and be arrested there, it will give rise to symptoms only lasting one day or two; if the process invade gradually all parts of a lung, there will be fever of long duration. The diffusion of the morbid process is by the bronchi, and not by lymphatic absorption or contiguity. If the diffusion took place by contiguity, those cases in which the process invades irregularly various zones of the lung could not be explained.—*Boston Medical and Surgical Journal.*

Corrosive Sublimate and Iodoform in the Puerperal State.—Valuable information is obtainable from the report of the discussion (in the Fifty-sixth Congress of German Physicians and Naturalists) on Kehrer's paper on Sublimate Injections(*Archiv fuer Gynæcol.*, Bd. xxii, Heft 1) Mercuric chloride is shown to be odorless, and cheaper and more soluble than carbolic acid. Keustner, who obtained the uterine secretions by means of tubes direct from the interior of the womb, discovered that the micrococci, which normally abounded in them, disappeared promptly after sublimate injections, but only slowly after carbolised injections. Bardelehner's experiments seem to show that a solution of 1 in 10,000 is sufficiently energetic. Ehrendorfer contributes an important paper, "Ueber die Verwendung der Iodoformstäbchen." He recommends iodoform pencils containing 90 to 150 grains of pulverised iodoform, and fifteen grains each of gum arabic, glycerine and pure starch, which are easily soluble and flexible; they are thus readily introduced into the uterine cavity, after the

**Revista Clinica*, November, 1883. *London Medical Record*, February 15, 1884.

genital tract has been irrigated with an antiseptic lotion. The iodoform was only used as an intra-uterine pencil in labors which were abnormal, or which were followed by purulent endometritis, etc. He reports in detail 29 cases, nearly all severe, in several of which the patient's condition was rendered desperate by the existence of gangrene, erysipelas, and other serious complications. König has shown that iodoform intoxication is rare when not more than ten grammes (about 150 grains) of pure iodoform are applied.—*Lond. Med. Times.*

A Contribution to the Study of Hysteria as Bearing on the Question of Oophorectomy.—Dr. G. L. Walton, of Boston, read a paper before the Neurological Association (*N. Y. Med. Journ.*) with this title. The operation, he said, should be limited to cases in which the symptoms were secondary to pelvic disturbance (such as cellulitis and cystic degeneration of the ovaries), as distinguished from the far more numerous cases in which the local symptoms were secondary to constitutional disorder. We might have to include certain cases in which no organic disease was suspected, but should be extremely conservative in this respect. We were ignorant of the exact relation of hysteria to ovarian disease. The theory was suggested that the loss of function in the cortical cerebral cells in hemianæsthesia, for example, was due to spasm of the cortical blood-vessels, analogous to that supposed to exist in some forms of migraine. In favor of this theory were mentioned the rapidity of onset and disappearance of symptoms, the regularity of the "transfer," and the fact that other vasomotor irregularities were common in hysterical patients. As supporting the theory, Dr. Walton mentioned a case, previously published by him, in which left-sided spastic migraine coexisted with right-sided hemianæsthesia, and with left-sided intermittent retinal ischæmia, the blood-vessels of the right eye remaining unaltered. If this theory was correct, the starting-point for the vascular spasm lay probably in irritation of the sympathetic nerves of the ovaries in the cases under consideration. Theory, however, was of minor importance as compared with the practical questions: Was hysteria ever secondary to pelvic disease? and Could it ever be relieved by removal of the ovaries? Both questions could be answered probably in the affirmative, in view of reported cases. As an illustrative case of the rôle played by hysteria as an additional indication for operation, the case was reported of a patient operated upon by another physician, in which hemianæsthesia and convulsive attacks, added to extreme debility and severe pain during and between the catamenial periods, furnished the ground for operating after failure of other treatment. The ovaries were removed without the tubes. Relief of all symptoms followed, including the hemianæsthesia and the hysterical convulsions, and the general condition of the patient was much improved. The improvement had been continuous up to the present time, over four months after the operation.

Some Curious Mortality Statistics.—Dr. William Pratt, of London, in his address to young men, gives these facts: According to statistics, the married life is not only the purer, producing the minimum of evil doers and criminals, but it is also by far the most healthy. Take the male sex, and it is seen that from twenty-five to thirty years of age, 1,000 married men furnish 6 deaths; 1,000 bachelors furnish 10 deaths; 1,000 widowers furnish 22 deaths. The figures, however, become very unfavorable if the marriage be contracted before twenty. Out of 8,000 young men married before twenty, their mortality has been found to be, before marriage, only 4 per 1,000; after marriage, 50 per 1,000. With respect to the female sex we find a similar advantage of marriage over celibacy, but on the same condition. If young girls be turned into wives before twenty a like mortality befalls them which befalls the other sex. Everywhere young married people from eighteen to twenty years of age die as fast as old people from sixty to seventy years of age. The common sense and common law of Western Europe have with perfect justice marked twenty-one as the age of maturity. After that epoch, however, marriage should be contracted as soon as practicable. It is the healthiest and the happiest life; the best for the individual and for the community.—*Jl. Amer. Med .Asso'n.*

Galvano-Puncture of the Prostate.—The Cincinnati *Lancet and Clinic*, quoting from the *Berlin. Klin. Woch.*, gives five cases as reported by Dr. Bredert (Hageman), principally of senile hypertrophies of the prostate, in which either one or both lobes of the gland were enlarged, and in all of these the catheterization was impossible, or could only be performed with great difficulty by bending the instrument. In analogy with the employ-

ment of electrolysis upon other tumors, the doctor tried it in these cases with very good results in diminishing the size of the gland. He used for this purpose a needle electrode, insulated except at its point, which he pushed into the enlarged gland. This was connected with the negative pole, cathode, of the battery, while the positive was applied to the chest or abdomen. The diminution of the organ took place with astonishing rapidity. In one case this occurred after the third application.—*Chicago Med. Review.*

Medical Items.

Prof. Verneuil treats cold abscess successfully after the following method: Draw off the pus by an aspirator and then inject the abscess sack with about a half an ounce of an ethereal solution of iodoform (one part to five). If a reaccumulation of pus takes place, several repetitions of this procedure become necessary, but the patient improves and a cure may be expected in a few months.=Digitalis in ten-drop doses is recommended by Dr. N. L. Folsom as an anaphrodisiac.=The *Medical Record* intimates that it is possible Dr. Koch may come to this country to investigate for the germ of yellow fever.=It is stated that M. Pasteur will be offered a seat as life Senator in the place of M. Wurtz, recently deceased.=Dr. J. M. DaCosta, of Philadelphia, heads the list of contributors to the S. D. Gross Professorship of Pathological Anatomy, with a donation of $2,000. The *Medical News* reports $4,459 subscribed to June 28th. =The Massachusetts Medical Society at its one hundred and third annual meeting, held in Boston, June 11th, adopted an amendment to its by-laws, admitting women to membership. The motion was presented by Prof. Bowditch.=The University of Heidelberg is about to celebrate its five hundredth anniversary. The Baden Parliament has voted £8,000 to meet the expenses of the occasion. =France has 37,672,098 inhabitants, of whom 1,101,090 are foreigners, of whom 432,265 are Belgians, 240,733 Italians, 81,986 Germans, 73,781 Spanish, 66,281 Swiss, and 36,006 English.=Seventy-nine deaths occurred in this city last week from cholera infantum.= Dr. Benjamin Rhett, a distinguished South Carolina physician, died at Sommersville, in that State, a few days ago. He was a member of the noted Rhett family.=The New Hanover Medical Society of North Carolina at a recent meeting elected the following officers for the ensuing year: *President*, Dr. W. F. Potter; *Vice-President*, Dr. G. G. Thomas; *Secretary and Treasurer*, Dr. W. B. Pritchard.=The Washington Obstetrical and Gynecological Society gave, on the 28th of June, a farewell banquet to Drs. Busey, Prentiss, W. W. Johnston and Billings at the Arlington. The occasion was in honor of the proposed departure of these gentlemen upon a European trip, during which they will attend the session of the International Medical Congress at Copenhagen.=The Criminal Court of Berlin has decided "that a fetus becomes legally a human being the moment labor has begun."=Dr. W. H. Brooks, of Fort Wayne, Ind., claims to have practiced medicine forty-five years and during that time has delivered 3,438 women at full term without a single death. The doctor calls this *unprecedented good luck.* We agree with him.=The library of the American Medical Association, located at Washington, D. C., now numbers 6,000 volumes, including pamphlets.=A crematory for New York, it is reported, is likely to be built before long in East Williamsburg, a company having bought land for that purpose.—*N. Y. Med. Journ.*=Dr. J. C. Hoffman, in the *N. Y. Med. Journ.*, reports the case of a physician who took forty-five grains of morphia *hypodermically per diem*, and also the case of a railway employee who took on an average one hundred and fifty grains daily.

Changes in the Stations and Duties of the Officers Serving in the Medical Department U. S. Army, from June 24th, 1884, to June 30th, 1884:

Clements, Bennet A., Major and Surgeon, ordered to relieve Major Jos. P. Wright, Surgeon, of his duties as attending surgeon at the Leavenworth Military Prison, Fort Leavenworth, Kansas. Major Wright, on being relieved, ordered to report to Commanding General Department of Texas for assignment to duty.

Hartsuff, Albert, Major and Surgeon, (Fort Riley, Kansas), granted leave of absence for one month with permission to apply for one month's extension, to take effect when his services can be spared.

Dickson, John M., Captain and Assistant Surgeon, assigned to duty as Post Surgeon, Alcatraz Island, Cal.

Girard, A. C., Captain and Assistant Surgeon, granted leave of absence for six months with permission to go beyond sea.

Changes in the Medical Corps of the U. S. Navy during the week ending, June 28, 1884:

Surgeon J. S. Knight, placed on retired list.

P. A. Surgeon R. Whiting, detached from U. S. S. "Vermont," ordered to Marine rendezvous, N. Y.

Surgeon H. J. Babin, detached from Marine Rendezvous, N. Y., ordered to U. S. S. "Minnesota."

Surgeon H. M. Wells, ordered for examination preliminary to promotion.

P. A. Surgeon G. P. Lumsden, detached from U. S. Steamer "Pensacola," and placed on waiting orders.

Original Papers.

REASONS FOR BELIEVING IN THE CONTAGIOUSNESS OF PHTHISIS.*

BY H. W. WEBB, M. D.

The germ theory of disease is by no means a new theory One of its earliest advocates was Athanasius Kircher, a learned German Jesuit, who lived in the early part of the seventeenth century; and about the same time lived Robert Boyle, an eminent Irish philosopher, who believed in the truth of this theory. The renowned Linnæus, the father of botany, was not only an ardent investigator of its claims, but published several memoirs in its support. In the latter part of the last century it had such supporters as Sir John Pringle and Dr. Wm. Farr, and in the early part of the present century it had such advocates as Sir Henry Holland, Schonlein, Cagniard de la Tour, Schultze and many others.

To the illustrious Pasteur, however, belongs the distinction of having done more than any of his predecessors to develop this intensely interesting and important subject, and of presenting its truths in such a way that they have become of immense practical use to mankind. His indefatigable labors, the ingenuity and exactness with which he pursued his investigations, the practical demonstrations he has given of the utility of the truths he has discovered, are well known to men of science. This special field of investigation is now occupied by many able and accurate observers and as a result of their labors the present generation may witness an epoch in the history of medicine, startling in its brilliancy of grand achievements in subjugating disease; when men shall hold in their hands effective weapons and be enabled to erect impassable barriers before those destructive scourges—cholera, yellow fever and tubercular phthisis. But two years ago the medical profession was startled by the announcement made by Robert Koch,† of Berlin, that, "Tuberculosis is a specific infectious disease, caused by a specific microorganism, the bacillus tuberculosis, which constitutes, in fact, the tubercle virus." Truly, since the time of the immortal Jenner, we have not had such a remarkable statement, nor one so weighty in its support! There is no reason to wonder why medical and other scientific bodies, the world over, have this subject so frequently under consideration.

The work of Dr. Formad, of this city, as well as the work of all other investigators in this field of research, has seemed to confirm the statements of Prof. Koch. There is nothing more seductive than speculation regarding the outcome of their future labors, of the truths which shall belong to those who will follow us, and of the beneficent power these truths shall arm them with.

But it is only hard and intelligent work that can make this future a reality, and I am persuaded that the frequent discussions of our Society, of points connected with the study of germs as a cause of disease, will do much good by stimulating the efforts of those members who are engaged in such investigations, and by enabling others who are interested in this work to make suggestions or offer criticisms that may be of some advantage to them.

In my paper this evening, I propose to limit myself to answering the affirmative of a question of great practical importance propounded by Dr. Formad in his recent paper, namely: "Is Consumption Contagious?" Dr. Formad is disposed to answer it in the negatlve and offers to you the names of a number of eminent physicians who apparently lend strength to his doubts concerning its contagiousness. For a number of years I have carefully studied this disease, and as a result of my observations I am firmly convinced that it is contagious. Indeed, the contagious character of the disease is generally believed in, and is taught by the most able and experienced clinicians of our day.

When a disease is unusually prevalent, it is very natural to suppose that it may be due to contagion or infection. Think, for a moment, of the ravages from tubercular phthisis. It exists in all climates; it affects all classes of people; it respects neither age nor sex. It claims about twenty per cent. of the death-rate of the civilized world. The mortuary lists of our city show a percentage in its favor amounting to about fifteen and a half, and the native population of those latitudes most frequented by consumptives succumb to this dire disorder as frequently as people do elsewhere, except, perhaps, Colorado. Is this to be accounted for by heredity or pre-existing lung trouble? If the disease was due to inheritance alone it would have become obliterated generations ago by a species of natural extinction, but the disease is increasing in a greater ratio than the increase of population, which shows that the disease *must be acquired afresh.*

Dr. Formad, in his valuable paper, makes the statement that, "According to the observations of the most prominent clinicians who have paid special attention to this matter, there is not a single authenticated case of tuberculosis as a result of contagion on record." This assertion is not tenable, since cases are recorded

*Read before the Philadelphia County Medical Society, June 11th, 1884.

† Die Etiologie der Tuberculose. Berliner Klin. Wochenschrift, 1882, No. 15.

by C. B. Coventry,* S. G. Morton,† Daniel Drake,‡ Tauchard,§ H. G. Bowditch,‖ Vialettes,¶ Beregeret,** Hardy,†† Seux,‡‡ Condie,§§ L. Tait,‖‖ Stevens,¶¶ Bernard,* Chamontin,† HermanWeber,‡ Flint, Sr.,§ Holden,‖ Reich,¶ Da Costa,* Booth,† Bryhn,‡ and many others. Is this not sufficient evidence that such cases are recorded? The fact that some of these names are better known than others, does not militate against the honesty and care exercised by the less distinguished observers and their deductions, which are justly entitled to a fair consideration. Obscurity does not, by any means, imply ignorance, lack of ability and keen perception.

Dr. Formad also asserts that, "Among scores of experienced men who deny thus the contagiousness of tuberculosis, it is sufficient to mention the names of Virchow, Recklinghausen and Stricker, in Germany; Gull, William Watson, Paget, Humphrey and Richardson, in England; Bennet, in France, and Hiram Corson and Trail Green in our midst—all men of close observation, with ripe experience extending over from thirty to fifty years." I also take exception to this statement, for Drs. Corson, Bennet, and probably many others mentioned in Dr. Formad's list, if heard from today, would not subscribe to this declaration, which finds fewer supporters than one would imagine to be the case. Some time ago I received a letter from Dr. Corson, in which he said: "Long since I advised my patrons not to have young daughters who were compelled to wait on a consumptive mother, sleeping in the same room with the patient." This certainly shows that while Dr. Corson may not be a thorough convert to the contagion theory yet he thinks it prudent to resort to preventive measures, by securing as much separation as possible of the well from the phthisical individual. And Dr. Bennet, who is also quoted by Dr. Formad, records the following typical case of contagion in his work :*

"A strong, healthy, well-made husband, age 27, with no hereditary or constitutional taint or weakness, came over from Australia—a four months' journey—in the same cabin as his wife, who was in the last stage of suppurative phthisis. She died soon after her arrival in England, and he came to Mentone that winter a confirmed consumptive, dying himself subsequently. He was perfectly well when he stepped on board the vessel at Australia; but in a small, confined cabin breathed for months an atmosphere loaded with pus particles thrown out of the suppurating cavities of his wife's lungs, possibly to his destruction."

After referring to the inoculating experiments of Buhl, at Munich, he makes the following statement: "But in the face of the results that these researches have brought to light, *it seems to me impossible to deny that it may be communicated to the healthy by breathing constantly air saturated with the purulent secretions of advanced phthisis.* This is an all-powerful argument (I am still quoting Bennet) for the free ventilation of rooms occupied by the consumptive, for the sake of those who attend them and live with them, as well as for their own. In a confined atmosphere they probably poison themselves by their own fetid breath, and extend disease to the healthy regions of the lungs."† Can this be used to confirm the belief of Dr. Bennet in the non-contagiousness of phthisis, or is it evidence in support of the position I take? This is but one of many similar cases quoted by various authors, who are scarcely willing to commit themselves while the evidence is so striking, that they, like Dr. Bennet, feel constrained to express the possibility of a contagious element in their causation.

"Whatever has happened, is capable of happening again; the only question relates to the condition under which it happens,"‡ and what are the conditions under the present circumstances? This is exemplified in the following case, very similar to the one narrated by Dr. Bennet:

"A lady, about 30 years of age, the wife of an officer in the army, left Calcutta with her husband to go by sea to Southamptom. At the time of leaving Calcutta *she* was in *robust health*, whilst he was in an advanced stage of consumption. They had a single close cabin, and she performed all the duties of a nurse for

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* U. S. Med. and Surg. Journal, New York, 1835, p. 392.
† Illustrations of Pulmonary Consumption, Phila., 1837, p. 80.
‡ Principal Diseases of the Int. Val. of N. A., Phila., 1854, p. 915.
§ These de Paris, 1860, p. 37.
‖ Boston Med. and Surg. Journ., 1884, p. 329.
¶ These de Montpellier, 1866, No. 44.
** Annales d' Hygiene et de Medicine Legale, 1867.
†† Bulletin de l'Academie de Med., 1868, p. 348.
‡‡ La Marseille Medicale, 1869, No. 4, p. 310
§§ Amer. Journ. of the Med. Sci, July, 1871.
‖‖ Ibid., October, 1871.
¶¶ Boston Med. and Surg. Journ., 1872, p. 168.
* These de Montpelier, 1872, No. 46.
† Ibid., 1874, No. 22.
‡ Clinical Society Trans. London, 1874, vol. 8, p. 141.
§ On Phthisis, Phila., 1875, p. 419,
‖ Am. Journ. of the Med. Sci., July, 1878, p. 145.
¶ Reynolds' System of Med., Am. Ed , 1880, vol 2, p. 118.
* Am. Journ. of the Med. Sci, April, 1878.
† Trans. of Southern Ill. Med. Assoc., 1879.
‡ London Med. Record, 1880.

* On the Treatment of Pulmonary Consumption, Phila., 1879, p. 51.
† Ibid, p. 50. Italics mine.
‡ J. S. Mill, System of Logic, 9th Ed. London, 1872 vol. 2, p. 144.

her husband. The weather was stormy, and the hatches were more than once battened down. The husband died off the Cape and was buried at sea. About three days later the lady arrived at Southampton. I was called to see her professionally. I found her with both lungs stuffed with tubercles; and she died in about six weeks afterwards. The painful duty was cast upon me of acquainting her with her condition, which I did, when she said 'Impossible; I was never better in my life then when I stepped on board at Calcutta.' I knew the lady well, and all her family, and there was no hereditary predisposition. In this case, all the necessary conditions for the propagation of the disease were fulfilled; *a high temperature* in a close ill-ventilated cabin, where the exhalations from the diseased lungs were inhaled by the sound lung, with the well-nigh inevitable result I have described."*

Were these the only cases we would think our point sustained. There are, however, but few physicians in our large cities who cannot recall cases in which they would rather commit themselves to a belief in the contagiousness of consumption than to ascribe its cause to anything else.

The following cases, due to contagion, have been communicated to the writer and are worthy of record:

Dr. J. Solis Cohen has kindly furnished me with the following case:

"More than ten years ago Dr. H., of this city, sent me a young female from the country in advanced phthisis, much emaciated, with aphonia from pressure of consolidated apex on right recurrent nerve. I gave her little encouragement and sent her home with some general instructions. Some two years later she called on me asking me if I remembered the last words I said to her; I did not, but she repeated them,'Your best chance is to take cod-liver oil, live on it if you can, eat it with your bread, with anything.' She went home much depressed, became bed-ridden for a number of weeks. She subsequently married, her husband acquired phthisis and died of it, and she was still living three or four years ago with consolidated apices and cicatrized cavities."

Juan B. Mears, of Monterey, Mexico, communicates to my friend, Dr. A. C. W. Beecher, of this city, the following case:

"A woman, suffering from the last stages of consumption, some year or two before had adopted a girl. The latter's mother, Mrs. H., questioned me about the safety of letting her daughter remain with the afflicted person. I examined the girl and found her strong and healthy, tall and well developed for her age (about 16 or 17 years old), without any hereditary predisposition. I told her that I feared no danger to the daughter if she would only take ordinary hygienic precautions. Well, the old lady died, and a few months afterwards Mrs. H. brought the girl to me, already with an as acute phthisis as I ever saw, and she died too. Questioning them about the case, they attributed the malady to the companionship of the old woman; they slept in the same bed,ate from the same dishes,breathed the same air, and she was infected probably by the phthisical debris. I must add that the people here believe in the actual contagiousness of phthisis."

The following case occurred in my own practice, and is also worthy of record:

October 7, 1880, I was requested to attend professionally Mr. H. F., aged 52 years, who had been ill for one year with phthisis. He died September 23, 1881. During all of Mr. F.'s illness he was most carefully nursed by his wife, who occupied the same room constantly; she contracted phthisis, and died August 3, 1882, aged 50 years. Mrs. F.'s mother died twenty years previously of phthisis, her father died at the age of 56 of cancer.

I may be permitted, in view of the few eminent names offered by Dr. Formad in support of his theory, to mention the names of a number of men of equal practical experience in medicine, who have recorded their belief in the contagiousness of the disease: Aristotle,* Galen,† Riveris‡ R. Morton,§ Baume,‖ Cullen,¶ Heberden,** Darwin,†† Coventry,‡‡ S. G. Morton,§§ Bright and Addison,‖‖ Dunglison,¶¶ Andral,* Drake,† Sir T. Watson‡, Copeland,§

‡ Brit. Med. Journal, 1883, vol. 1, p. 21.

* Practical and Historical Treatise on Consumptive Diseases, by T. Young, M. D., London, 1815; p. 15.

† Paulus Ægineta, Syd. Soc. 1844, vol. 1, p. 286.

‡ Practice of Physic. London, 1668. p. 170.

§ Phthisiologia, or a Treatise on Consumption. London, 1694, p. 67.

‖ Phthisis Pulmonaire. Montpellier, 1789, vol. 1, p. 189.

¶ Practice of Medicine. Edinburgh, 1790, vol. 2, p. 390.

** Commentaries on the History and Cure of Disease. London, 1802, p. 375.

†† Zoonomia. Phila., 1818, vol. 1, p. 311.

‡‡ U. S. Med. and Surg. Journal. New York, 1835, vol. 1, p. 389.

§§ Illustrations of Pulmonary Consumption. Phila., 1837, p. 90.

‖‖ Elements of the Practice of Medicine. London, 1839, vol. 1, p. 294.

¶¶ Practice of Medicine. Phila., 1844, vol. 1, p. 365.

* Notes to Lænnec's Treatise on Auscultation, edited by Herbert. London 1846.

† Principal Diseases of the Int. Val. of North America. Phila., 1854, p. 915.

‡ Principles and Practice of Physic. London, 1857, p. 217.

§ Dictionary of Practical Medicine. New York, 1859, p. 1228.

Dickson,‖ W. Budd,¶ L. Tait,** Walshe,†† Madden,‡‡ de Mussy§§, H. Weber,‖‖ Holden,¶¶ Da Costa,* Rühle† of Bonn, Lichtheim,‡ Klebs,§ Bollinger,‖ Flint,¶ and many others could be mentioned.

Dr. Formad lays great stress upon the fact that the medical officers and attachés of the Brompton Hospital have not contracted phthisis. This would be the last place in the world to look for the disease as the result of contagion, for every one knows who has visited that hospital, that hygiene and regimen are most scrupulously carried out to the highest point of excellence known, the nurses and other attachés being on duty only a portion of the twenty-four hours, and when on duty are not constantly in the wards. Compare this with the manner in which patients are cared for in private practice: The nurse, a member of the family, or friend of the stricken individual, generally occupies the same room, day and night—more especially in the advanced stage of the disease, and the hygiene and regimen do not, except in a few instances, receive proper attention; in some cases they are wholly neglected; every crevice about the windows, and sometimes even the key-holes, as I have more than once seen, are plugged up for fear a little fresh air might get into the room and the patient "take a cold."

As a rule, the nursing of the phthisical in private practice is unskilful, and the circumstances under which the nurses perform their office, render them more liable to fall victims to the disease. Cases of phthisis due to contagion *have*, nevertheless, occurred at Brompton Hospital, for Walshe* makes the following statements in regard to his assistants:—

"Curiously enough, of the first three clinical assistants I had at Brompton, two died of phthisis, and the third left the establishment with slight hæmoptysis, cough and chest uneasiness. The latter is now (1871), in perfect physical condition, one of the former had clearly been affected before he came to the hospital, the other was a model of sturdy health when he took the office."

‖ Elements of Medicine. Phila,, 1859, p. 625.
¶ The Lancet, 1867, vol. 2.
** Amer. Journal of the Med. Sci., 1871, vol. 2.
†† Diseases of the Lungs. London, 1871, p. 452.
‡‡ Dublin Journal of Med. Sci., vol. 40, p. 33.
§§ Brit. and For. Med. and Chir. Rev., April, 1870, p. 529.
‖‖ Clinical Soc. Trans. London, 1874, vol. 8, p. 144.
¶¶ Amer. Journ. of the Med. Sci., July, 1878.
* Ibid., April, 1878.
† Medical Record. New York, May 19, 1833.
‡ Ibid.
§ Ibid.
‖ Ibid. March 22, 1884.
¶ Medical News. Phila., Jan. 19, 1884.
*Diseases of the Lungs, London, 1871, p. 459.

He says further:—

"* * * I must confess, my belief in the reality of such transmissibility has of late years been strengthened. I have met with so many examples of the kind, that 'coincidence' becomes itself an explanation difficult of acceptance. I have besides, in three instances, seen a robust husband become distinctly and actively phthisical, as shown by general and local symptoms and physical signs, and on the death of his phthisical wife, whom he had closely tended, fall into the retrogressive stage of the disease, and ultimately practically recover."

Hereditary influence in producing the disease is not as great as many believe, and all efforts have failed to prove, by statistics, the existence in a majority of the phthisical of an unfavorable tubercular family record. Walshe† says:—"The final conclusion flowing from the analysis of the family history of 446 persons is, *that phthisis in the adult hospital population of this country is to a slight amount only a disease demonstrably derived from parents.*" "Of 374 cases occurring in old women at the Salpetrière Hospital, reported by Piorry, 78 died without presenting any traces of tubercle, although their parents died from that disease."‡ Dr. Cotton, who analyzed 1,000 cases at Brompton Hospital, found only 365 cases in which hereditary taint could be proved; Scott Allison's observations, at the same institution, show, in 603 cases, a hereditary influence in but 19. Walshe concludes, after most careful investigation, that not over 26 per cent. can be traced to hereditary taint. How then are we to explain the cause in the remaining, we will say, 60 per cent.? Are they to be traced to pneumonias, pleurisies or kindred diseases? Or are we to conclude that there is a *specific poison* to which they may be exposed which produces this disease? I think there is, in fact there must be such a specific poison.

I will here give a hypothetical case, in order to show *the fallacy of hereditary transmission of disease*:—A. B. is stricken with tuberculosis, the family are amazed at the announcement of the fact by the attending physician, and they state that the parents and grandparents are still living and enjoying good health; the family trace back to the third generation and find that a great-grandmother died of phthisis, and this gives some satisfaction as to the disease being in the family. And if we go back three generations to find the cause for tuberculosis, why not go back four or five if nothing is found in the third, or fail-

†Diseases of the Lungs, 4th ed., London, 1871, p. 462.

‡Quoted by Dr. Durant, Trans. of the N. Y. State Med. Soc., 1871, p. 172.

ing to find it in these go back as far in the family history as tradition may extend, and finding one ancestor who *probably* died of phthisis, to conclude that therefore the case we see is transmitted from that ancestor. This, to my mind, is absurd, and yet I know the tendency of family and physician (particularly the latter) to look for this, in the transmission, rather than in an acquirement in the individual, *per se*. It is not sufficient to declare hereditary transmission when even some of the children of phthisical parents, while partaking of their delicate constitutions (that is delicate in figure and lacking ruggedness) will live to good round ages and perish from other diseases.

I do not assert that exposure to the poison will produce the disease in all individuals any more than any other zymotic poisons will, for there are many who are for the time at least insusceptible to their action, and this is owing to the fact that they present no proper nidus for the poison-germ, yet from this we are not to argue that the germ itself is less potent to an individual susceptible to it. The belief in the contagiousness of the disease is as old as its literature itself. As long ago as 1668, Riveris,* who for more than twenty-five years was professor of physic in the University of Montpellier, in speaking of the causes of phthisis, wrote as follows: "Moreover, there are external causes, as contagion, which is the chiefest; for this disease is so infectious, that we may observe women to be infected by their husbands, and men by their wives, and all their children to die of the same, not only from the infection of their parent's seed, but from the company of him that was first infected. And this contagion is more easily communicated to those that are of kin, wherefore it is not safe for a brother or sister to enter into a chamber, for the *miasmata* or infective vapors, which come from their lungs and infect the whole air of the chamber, and being drawn in by others (especially if they are anyway disposed to the same disease) beget the same disease in their lungs."

Not only among the members of our profession, but among all classes of people, the belief is prevalent, especially in Italy, Southern France, Spain, Portugal and Mexico. At the Canary Islands they look upon consumptives as little better than lepers, and they are kept in a species of quarantine, being subjected to many vexatious restrictions in regard to their intercourse with the indigenous population. This would serve to show that there must be some well-grounded reason for such belief, and it ought not be regarded as superstition.

*Practice of Physic. London, 1668, p. 170.

It is impossible to comprehend how a disease, specific in its character, and definite in its course can be transmitted from parent to child; how the germ comprising the complicated organism of man could develop from the microcosm into a highly complex creature, carrying with it the elements of destruction as a part and parcel of its structure. Such teaching is opposed to all known biological facts, and it seems that writers have fallen into the fashionable professional rut in searching for the etiology of many diseases, and in none more deeply than ascribing hereditary transmission, when in reality they should say an hereditary predisposition to certain diseases.

There are a number of authorities who hold the opinion that phthisis is transmitted from parent to offspring, and among the number is Sir Wm. Jenner* who states—"That tuberculosis is transmitted from parent to child, is one of the established facts in medicine." This is absurd. If the disease is transmitted why does it remain latent for so many years? There is no such thing as the direct transmission of a tubercular virus from parent to offspring; this has been shown by such pathologists as Guizot, who, "In four hundred post-mortem examinations of the bodies of new-born infants, failed to find a single deposit of tubercle, and Gluge asserts that there is no born tubercle."† Tuberculosis to-day is the same, and manifests itself in the same manner that it did centuries ago. It reveals the same pathological appearances in one case as in another, and maintains its specific character under all circumstances. How then is it possible to harmonize known facts with the doctrine of hereditary transmission, when diseased parents and the east wind are equally effective in producing the same specific result? That constitutional peculiarities are not pathological, needs no argument; and therefore our faith in their transmission need not be put upon the stretch in acquiescing in this belief. Nor is it to be denied that constitutional peculiarity may be acquired and still leave the body in a physiological condition. As an instance: Most persons have a transmitted constitutional condition of body that may be infected by the virus of small-pox; this habit of body may be so altered, by vaccination or otherwise, that it cannot be infected, and still leave the body in a physiological condition. The susceptibility was transmitted and it is destroyed. On the other hand, the susceptibility may be acquired instead of being transmitted, so that he who was born constitutionally protected may be-

*The Practice of Medicine To-Day. London, 1869, p. 48.

†Quoted by Durant, Trans. of the New York State Med. Soc., 1878, p. 174.

come jeopardized, if exposed to the infecting influence of the small-pox germ. Even in the propagation of this highly infectious disease two distinct factors are engaged, between which there is a perfect coadaptability, if I may so speak, for, when they are brought together they combine to bring about a certain result, uniform in appearance and constant in character.

We have a marked illustration of the fact that certain modified conditions of the parents are not transmitted to the offspring, in the case where parents have been vaccinated and yet there is no protection from small-pox in the child. This has been aptly compared to the soil and the seed. The earth could not bring forth fruit without the seed, the seed could not germinate and reproduce itself without the soil. The soil in order to be productive should be fertile, and the seed should embody within itself the elements of life. The condition of the body, like the condition of the soil, determines its efficacy as a factor and its relevancy to a specific result, when joined to that other factor, the seed or germ, in the production of disease. The body is the soil for disease-producing germs. If the body does not offer a suitable nidus, the seed planted therein could not germinate, grow, bud, bloom or fructify. This peculiar condition of various parts of the animal body, which offers a suitable soil to disease-producing germs is familiarly known in medicine as *predisposition*. It is that which is transmitted from parent to child—the predisposition to certain diseases, and not the disease itself. A tuberculous parent may transmit this soil, this habit of body, this *predisposition*, to his or her offspring, but cannot under any circumstances at the same time transmit the seed in a dormant state already planted in that soil. Dissections, as already stated, have not revealed tubercles in the new-born. They may be born with many physical imperfections but never with any trace of tuberculosis. The individual must be subjected to disturbing extrinsic causes before there are any evidences of tuberculosis, and when such manifestations do occur, they are of a peculiar and constant kind. One case of tuberculosis is as much like another as one case of small-pox is like another of that disease. It would indeed be a strange coincidence, and one that could not be accounted for by any telluric or atmospheric influences so variable in their nature and uncertain in their operation. When we observe a constant recurrence of symptoms and pathological changes in a series of cases, we naturally conclude that a specific cause is operating upon a peculiar condition of body to produce such a uniform result. It is evident that the offspring of phthisical parents sometimes escape the disease for M. Pidoux states that:—"Not over twenty-five per cent. of those born of consumptive parents themselves become phthisical."*

The predisposition is not only inherited, but is also acquired by the offspring of healthy parents; thus parents of non-phthisical children may themselves acquire the disease under conditions favorable to its development. It is not contended by those who believe in and know the fact of the contagiousness of phthisis, that the disease is thus contracted as frequently as other infectious or contagious diseases are acquired; but, I am free to say, however, that there is far more danger to be dreaded from nursing the phthisical in private practice, than there is from nursing cases of typhoid fever. In the latter disease, the "*materies morbi*" resides in the excreta, and by cleanliness the infectious element is promptly removed and the danger lessened; this is not the case in phthisis, for in that disease the "*material cause*" resides in the effete matter constantly being thrown off from the lungs of the stricken individual, especially in the advanced stage of the disease. This has been proved by Ransom,* who found the bacillus tuberculosis in the air of a room containing several advanced cases of phthisis. Dr. R. Charnley Smith,† detected them in a respirator worn by a phthisical patient, and Dr. C. T. Williams,‡ by an ingenious method, has found the bacillus in fair abundance in the extracting flues at Brompton Hospital. The tubercular bacillus is characteristic, and can readily be discriminated from all other bacilli. It has been found in all the tubercular lesions of the organs and tissues of the body of the phthisical, including, of course, the osseous system and its medullary substance. It has also been found in all the secretions and excretions of organs similarly affected. It is a well-known fact that phthisis prevails to a great extent in most of the European armies, and this prevalence can only be accounted for by the contagious character of the disease. As an evidence of this, it might be stated that Surgeon General von Lauer,‖ of the Prussian Army, has recently issued a circular to the medical officers, directing them not only to isolate the phthisical from the non-phthisical, but *that special means be taken for the disinfection of the sputa in tuberculous cases.*

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*Quoted by Dr. Durant, Trans. of the N. Y. State Med. Soc., 1871, p. 172.

*A His. of Tuberculosis, by E. Sattler. Cin., 1883, p. 164.

†The Lancet, Jan. 20, 1883.

‡Ibid., July 28, 1883.

‖Sanitary Engineer, 1883, vol. viii, No. 20.

"Sir Wm. Wild,§ in the Irish Census Reports for 1851, states that in the years 1847, '48, '49, there died of phthisis, in Ireland, 66,000 persons, or 22,000 per year." This occurred before the tide of emigration to this country set in. So frightful a mortality can only be attributed to the crowding together of people obliged to breathe an atmosphere loaded with the germs of this disease.

THREE CASES OF PYÆMIA.

BY OSCAR J. COSKERY, M. D.,

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Cases of pyæmia are not so common in civil practice, but that the reports of the three following may be of interest. One point may be noted, and that is that the old observation as to the frequency with which fractures of the skull are followed by this grave constitutional disease, is fully borne out, though the site of fracture varied.

CASE I.—On March 27th, 1879, Wm. G., colored, appeared at the clinic with a large fluctuating tumor, looking as if divided into two by a depression, at the back of the right elbow. There was another near the wrist. Upon freely incising the first, only the pus upon that side of the depression flowed out. Another incision was required for the other side. From these, as well as from the swelling at the wrist, about half an ounce of buttery pus escaped. Upon questioning the patient, all that could be made out was that he had felt out of sorts for a week, and that these swellings had appeared within four days preceded by pains at the points. A few days afterwards an abscess made its appearance near the right shoulder. On examining the patient carefully, for the second time, a puffy swelling and small scar was found at a spot about one inch above the left supra-orbital arch, and midway between the outer angle of the orbit, and the median line of the forehead. The scar was easily opened up with the finger. A very small quantity of pus escaped, but below this the skull was found to have suffered from a punctured fracture. On close questioning, patient said that about ten days before coming into hospital he had accidentally run his head against a nail in the dark. From this time numerous abscesses made their appearance on the right lower extremity, the left upper and lower extremities, together with profuse sweats, high temperature and rapid emaciation, and the patient died on July 24th, 1879, seemingly of exhaustive suppuration. The only joint involved was the right knee, which was completely disorganised.

CASE II.—Henrietta H., widow, born in Germany, a market woman, was knocked down by a beer-wagon on November 10th, 1881, and received injuries from which, on entrance to the City Hospital half an hour afterwards, she was partly unconscious. State on admission: The patient lay quietly upon her back, breathing deeply but not stertorously, and would answer in a stolid way when spoken to loudly. The face was pale, the surface cold, and from the right nostril a steady but small arterial stream ran. The left upper arm was found to be the seat of fracture at the middle third. The latter was put up. On November 11th the bleeding from the nose had ceased but there was partial paralysis of the muscles of the left side of the face. Within a week this symptom had nearly passed away and patient seemed to be doing very well. She was, however, very hard to control.

On December 6th, 1881, symptoms of pulmonary complication made their appearance and she died December 10th. On post-mortem examination the following were found: The skull showed a stellate fracture of either middle fossa, the bone being driven upwards and impressing the brain substance. On the right side the fracture extended into the cribriform plate of the ethmoid bone. The union of the fragments was generally very strong. The right lung, most particularly, was the seat of many hemorrhagic infarcts, though they also were to be found in smaller number in the left lung. The other viscera showed nothing worthy of special notice.

CASE III.—Christoph L., aged 18, butcher, on May 19th, 1884, accidentally struck himself with the sharp side of a hatchet, about half an inch above the outer angle of the right eye. The skin wound was closed with adhesive plaster, although, by his account, very considerable hemorrhage took place. The boy says that he has felt badly ever since; some fever, loss of appetite, and pain in region of wound. Was admitted into St. Joseph's Hospital on May 26th, 1884

State on admission: The patient was feeble, feverish, constipated; there was loss of appetite, sleeps badly, extravasation of blood in right upper eyelid and under the conjunctiva; the back of the left hand and wrist was uniformly swollen, hot and painful. He had bled from the nose before admission, but on night of entrance a very copious hemorrhage took place. The tongue dry and sordes on teeth. Wants ice continually. Lies on his back with arms at sides, and complains if any movement is made of them. On 28th

§Dublin, 1856, vol. i, p. 447, also quoted by H. McCormac, M. D., "On Consumption, London," 1865, p. 225.

no better, slept badly, nose bled again last night.

May 29th.—Unilateral convulsions (right sided) came on last night at 9 P. M., accompanied by attempts at talking. Constipation continues in despite of pills and sal Rochelle. Screams out occasionally. Castor oil ordered. May 30th.—An almost sleepless night; delirious. Noticed this A. M., sudamina on breast and neck. Pulse weak and rapid. Thought a pericardial friction sound could be detected. Patient passed stool and urine in the bed unconsciously. Sweating profusely; no rigors. Will not move his right arm, and any attempt at handling produces cries and moans. Upon examination the upper arm is found to be œdematous and red, and pits on pressure. 31st.—Patient is apparently better, is more rational, tongue cleaner, the sound heard over the heart yesterday is now absent. Slept some last night. Eats ice constantly. Lies on his back stupidly, only occasionally raising his left hand above his head.

June 1st.—Has rapidly emaciated, but other constitutional symptoms look less grave. Sweating profusely. Wound of forehead suppurating. June 3rd.—Tongue dry. Œdema of right upper extremity, as well as redness and sensitiveness increased. Swelling, pain and redness involving the neighborhoods of each ankle-joint. Fluctuation very distinct over left wrist. This was opened upon the dorsum, and a quantity of pus was given exit. Sweats continue with high temperature. June 4th.—Patient seems to be brighter; the tongue is cleaner and he is cross. No signs of pointing in either ankle or right upper extremity. June 5th.—Urine not smoky nor albuminous. Great tympanites; has had "convulsions." Both arms œdematous; restless; picking at bed-clothes. Delirium of mild character; takes everything of fluid kind given him. Passing urates in large quantity. Bi sulphate of quinia in 20 gr. dose, followed in two hours by 25 grs. had no effect upon temperature. June 6th.—Began to vomit greenish-yellow fluid; all four extremities, face and neck, became boggy and œdematous, and patient died quietly at 8.30 A. M. Temperature just before death 107° Fahrenheit.

On Post-Mortem.—The lungs presented numerous infarcts. There were no abscesses in them, nor in the liver or kidneys. The latter organs, as well as the spleen, were congested. No permission to examine the skull could be gotten.

Remarks.—The treatment in each case was tonic, but in the third carbolic acid, in one grain doses, was added to the quinia. The acid did not produce its characteristic effect upon the urine, nor did it seem to be of the slightest service to the patient. While enough of the classical symptoms were present to enable one to make a correct diagnosis in each case, none of them was typical.

Selected Paper.

ON COW'S MILK AS A VEHICLE OF INFECTIOUS AND EPIDEMIC DISEASE.*

BY W. N. THURSFIELD, M. D.,

Medical Officer of Health to the Shropshire Combined District,

To fully consider the above subject would involve questions in comparative and human pathology of themselves more than sufficient to occupy the time at my disposal on the present occasion. I shall therefore endeavor to confine my remarks to generally acknowledged facts, and to suggest such remedial measures as shall be equally efficacious and advisable, whatever technical views may be held as to the extent and precise mode in which cow's milk becomes a vehicle of human disease.

The subject is one with reference to which it is specially desirable on the one hand not to create undue alarm, and on the other hand not to make light of or pass over apparent sources of disease, however improbable they may appear at first sight.

The greatest risk of danger from milk lies in the fact that the chief consumers are of an age when the body is most susceptible of taking disease, and the consumption of unboiled milk may be literally be said to bring the consumer into close connection with the animal from which the milk was drawn, and, always to some extent and often most intimately, with the family and domestic arrangements of at least one household and often two.

When we consider to what extent milk is a reflection of the bodily condition of an animal and of its food, and how very absorbent milk is of volatile matters in the atmosphere, and how prone to undergo septic changes, the wonder is not that so many but that so few bad consequences have been hitherto traced to its use.

To Dr. Michael Taylor, of Penrith, is, I believe, due the credit of having in the year 1858 first recorded a milk epidemic in an account of an epidemic of typhoid fever. The subject appears not to hahe attracted much attention until Dr. Ballard's well-known report of an epidemic of typhoid fever in Islington in the year 1870, since when records of about a hun-

*Abridged from a paper read at a conference at the International Health Exhibition on June 12th, 1884.

dred epidemics, alleged to be traceable to milk dissemination, have been published, and others not published have been noted.

The connection of an epidemic with milk supply is a matter with regard to which the statistical method, unless applied with scientific accuracy and rigorous impartiality, may readily lead to a wrong inference, and a coincidence be recorded as a consequence, and this would doubtless apply to some of the epidemics recorded.

Making allowance for all doubtful cases, it may, I think, be accepted as an absolute fact that epidemics of typhoid fever and scarlet fever have been repeatedly disseminated by milk, and that there is very strong evidence that diphtheria has been so disseminated, and instances have been adduced by most competent observers. Other infectious diseases have been alleged to have been so transmitted, but the cases are not so numerous, nor the evidence so clear. If, however, we accept the transmission by milk of the diseases above named, we are justified by our knowledge of the nature of infectious diseases generally, in assuming that to a certain degree the same danger may exist in the case of all infectious diseases, and should be guarded against.

With a view to propose efficient preventive measures it is necessary to consider the probable mode in which milk becomes a vehicle for the germs of infectious disease. I am certainly expressing my own opinion, and I believe also the opinion of the majority of those who have carefully studied the subject, that this is a point on which we have as yet very little accurate knowledge. In the case of the majority of milk epidemics investigated, typhoid fever has been the disease involved, and in the majority of such cases, specifically contaminated water added to the milk has been regarded as the source of the evil. This doubtless has been the case in many instances, but this theory does not appear to satisfactorily explain all the epidemics of typhoid fever, nor the epidemics where scarlet fever or diphtheria has been the disease involved. Another possible explanation is that the milk may be a simple carrier of the disease in the same way that articles of clothing convey the germs of disease. This may explain some cases. There still, however, remain a considerable number of epidemics in which the above explanations do not suit the observed facts. Another explanation is that milk itself may become specifically infected and serve as a nidus for the disease germs, in other words may itself catch the disease. Certainly milk is specially calculated by its composition to act as a cultivation-fluid for the germs proper to the human body, though it is difficult to believe that it would readily so act at the ordinary temperature. Freshly drawn milk is, however, warm, and in cases of bovine sickness the milk temperature is still higher, and the milk in a more favorable condition to act as a cultivation-fluid for any zymotic germs it may come in contact with.

Another suggestion is that milk epidemics may be explained on the theory that the disease is the expression in the human subject of some apparently different disease in the animal. If this were the case those engaged in investigations into the origin of outbreaks of infectious diseases would be expected to find a larger percentage of inexplicable cases (*i. e.* cases where the source of infection was not readily traceable) at farm-houses or cottages where cows were kept. Such is, however, certainly not the case in scarlet fever or typhoid fever. In diphtheria I will not give a positive opinion, and it has struck me that very frequently outbreaks in which the source of infection was not readily traceable, have appeared in connection with a certain class of small farms where a few cows were kept, but I believe this fact, if fact it be, to be explicable by the natural history of diphtheria, as in this disease, essentially a disease of rural districts, structural dampness of habitation is of all defects the one most favorable to the severity and persistent vitality of the infection, and to its recrudescence often at intervals of years, and the class of houses to which I allude are often imbedded in damp situations or on a water-logged subsoil, and structurally damp.

It has more recently been suggested that the infected condition of the milk may result from the animal being itself the subject from human infection, direct or remote, of the disease in a modified or altered form. We know that in mankind the parturient condition renders a mother peculiarly susceptible to take zymotic disease, and that in such cases salient symptoms of the specific zymotic disease are masked and suppressed, and it has been suggested that something of the same kind may take place in the case of the parturient cow, but that the disease is modified, and so slight as not necessarily to attract attention. This theory has received some support from experimental evidence. Dr. Klein, by inoculating a cow, recently calved, with the virus of scarlet fever, appears to have succeeded in producing a febrile ailment which proved transmissible to dogs by inoculation, and produced in them an apparently specific disease. The theory also receives some indirect support from certain exceptional features which are said to have been observed in the character of the disease in milk epidemics, and it is remarkable in what a large proportion of the epidemics of scarlet fever believed to have been disseminated by milk, there is distinct evidence of the cows having been milked by persons in close

contact with cases of the disease in the human subject. The above explanation could not, however, apply to those instances in which the milk has been assumed to have become infected after it has been removed from the dairy farm.

In addition to recognised human diseases, milk may become a vehicle for the transmission of recognised bovine disease to man. That the infection of foot-and-mouth disease (*eczema epizootica*) can be so transferred there is no manner of doubt. Numerous instances have been recorded. When, indeed, we consider how sensitive the secretion of milk is to the general constitutional condition of the animal, and that the first symptom of illness noticeable in cows is a sudden and marked diminution in the yield of milk, it is difficult to believe that the milk from a diseased animal can be otherwise than injurious. We are, however, met with very contradictory evidence.

No amount of negative evidence can, however, upset positive cases, and we are justified in the conclusion that if there is considerable uncertainty, there is sufficient evidence of risk to render it necessary to take such precautions as are indicated by experience.

It is asserted by some high authorities that bovine tuberculosis is transmissible to man. That a considerable proportion of milch cows are affected with tubercular disease is admitted, but whether the disease be or be not transmissible to the human subject through the milk, is a matter difficult to prove, and a point about which there is much controversy, though considerable evidence of probability has been adduced. If such transmission can be satisfactorily proved or even shown to be frequently probable, the question of this disease would then transcend in importance any previously referred to by me. All we can venture to suggest as practicable at present, is that no milk should be sold from cows in a recognized stage of tubercular disease.

It is, however, an acknowledged fact that cows fed in urban cowsheds are much more prone to this disease than those fed in the ordinary way in the country, and if the recent large development of the milk trade from the country has had the disadvantage of prolonging the interval during which milk is kept before being delivered to the consumer, and thus affording more time for septic action, this is more than counterbalanced by the lessened danger of the milk being derived from tuberculous animals.

There have recently been recorded outbreaks of epidemic sickness traceable to milk which, although presenting features agreeing with no recognised human or bovine disease, have presented sufficient uniform characteristics to entitle them to be considered as belonging to a specific disease. It is uncertain whether these symptoms depend upon some epizootic disease transferred to the human subject (and it would be in accordance with analogy and experiment, that an animal disease when transferred to man, may present symptoms varying in degree and kind from those which it originally presented), or are the result of the evolution, under favorable conditions, of a special degree of virulence in septic germs received from without, and not in any way connected with the animal source of the milk?

One notable fact in connection with milk epidemics is that they have generally occurred in connection with milk purveyors who have been under contract to supply a certain amount of milk daily to be subsequently retailed. This is possibly open to the explanation that in such cases only, as a rule, can the necessary statistical evidence be forthcoming and attract attention. It is, however, I trust no libel on human nature to say that milk purveyors so situated would have greater inducement to continue the use of milk from cows suffering from slight illness, or to bring into trade use milk from parturient animals earlier than would otherwise be done, and, assuming the animals to be the source of the mischief, the mixed milk of twenty cows would at all times be very much more dangerous than the milk of twenty cows used separately. Although in acute disease the quantity of milk is decreased, the secretion does not generally cease altogether, and it is an important part of the treatment and essential for the well-being of the animal that it should continue to be regularly milked, and some people would probably honestly believe that if this milk was mixed with a large quantity of wholesome milk, no harm could ensue.

It is a popular belief that if the provisions of the Adulteration of Food Act are actively put in force, and the duties of the public analyst efficiently performed, sufficient protection is afforded against evils traceable to milk supply. Chemical analysis, especially when applied to mixed milk from a number of cows, although indispensable to expose a marked addition of water or abstraction of cream, is valueless as an indicator of infected milk, and, as negative evidence of danger or positive evidence of infection, is as fallacious in the case of milk as it is in the case of water.

There are certain circumstances under which, when the individual members of a community cannot well protect themselves, it is recognised to be the duty of the State to furnish as far as possible the necessary safeguards. This principle as applied to milk has already been endorsed by our legislature, and acted upon in Sec. 34 of the Contagious Diseases (Animals) Act, 1878, and by the Order in Council of July, 1879, founded on the above

section, and known as the dairies, cowsheds and milk-shops order. I propose now to bring under notice the practical working of this legislation with a view of considering what measure of protection is afforded by it to the consumer against the risk, that, with milk, the germs of disease may be introduced into households. I think the answer must be that it affords no sufficient protection, and the reason I believe to be that this important matter, instead of being placed prominently under the operation of the laws relating to the health of mankind, has been made to occupy a very secondary and subsidiary place amongst the statutes relating to diseases of animals.

To place all dairies in rural districts under the same regulations as apply to cowsheds in large towns would be inexpedient. Already milk is too difficult to obtain by the cottage class in many rural districts, and every care should be taken not to render this more difficult. A wide distinction should be drawn between milk purveyors and ordinary cow-keepers. The milk purveyors should be alone subject to the special regulations and license. The term purveyors should be restricted to those who sell milk by retail by sending it round from house to house, or keep shops where milk is sold as a prominent article of trade, or transmit milk in bulk to a distance for subsequent sale by retail. All such purveyors should be subject to license. Regulations are of course necessary, but what is chiefly needed is efficient inspection and responsible advice under certain exceptional difficulties.

To effectually prevent milk epidemics precautions are necessary:

(*a*) At the house of the consumer.

(*b*) At the milk-shop of the retailer.

(*c*) At the dairy farm of the wholesale purveyor.

(a) *Precautions Advisable at the House of the Consumer.*

If there is one fact which more than another has been uniformly brought out in the records of milk epidemics, it is that the consumers of boiled milk have, as a rule, escaped, and the same fact has been noted in outbreaks of an American epizootic which is readily transmissible to man, known as the milk sickness. The same protective influence of boiling infected milk has been observed abroad in connection with the experimental transmission of bovine tuberculosis to other animals. To boil milk may, for practical purposes, be said to confer immunity from infection conveyed by it, though such should never be absolutely relied upon, or when milk is known to be infected. At the present day in this country, milk is the only animal product which is habitually consumed in a raw state. There is no dietetic reason why milk should not be always cooked before consumption. The objection of many on the score of taste would disappear with use, as taste is very much a matter of cultivation. But boiling milk produces certain physical alterations which interfere with its subsequent general use when cold, and cause considerable prejudice against the obvious precaution of boiling the milk in bulk when received from the retailer.

(b) *Precautions advisable in connection with the Milk Shop of the Retailer.*

Generally those adopted by urban sanitary authorities, with the addition that, on the occurrence of any infectious disease amongst the employés, the fact should immediately be notified to the proper authorities.

An urban sanitary authority should also have the power to stop the sale of milk consigned from any particular farm pending investigations, if satisfied that he has sufficient grounds for so doing, but should be liable for compensation if the step prove to have been uncalled for or unnecessary.

It should also be incumbent on a retailer of milk, when required by the sanitary authority, to furnish a list of his customers.

(c) *Precautions advisable at the Dairy Farm of the Wholesale Purveyor.*

In connection with the above subject, there is much that is theoretically desirable that is at present not practically attainable; I believe, however, that it is possible, without omitting any requirements absolutely essential to safety, to restrict the compulsory provisions to such steps as are practicable under existing conditions. The requirements as to cubical and floor space and ventilation, of the regulations generally adopted in the case of urban cow-sheds, are unnecessary in the case of dairy farms; and I fear that in the case of rural cow-houses, requirements as to washable wall surfaces and impervious flooring could not at once be complied with, and the same would apply to the requirements as to daily registering the quantity of milk given by each cow, and taking the animal's tem-

perature, and the restrictions as to feeding incorporated in the regulations adopted in some parts of Germany.

There are certain requirements, however, which are essential and not unreasonable.

The premises on which the business of a milk purveyor is carried on should be registered.

Every registered dairy should be provided with a plentiful supply of good potable water for the use of the dairy and cows.

The dairy used for storing and refrigerating the milk, should not be subject to animal effluvia of any kind, and should be satisfactorily drained, and the dairy should not be used for general domestic purposes.

Under the following circumstances the milk should not be transmitted for sale:

Milk presenting any marked deviation from ordinary appearances, in either color, smell, or general condition.

Milk from an animal manifestly the subject of constitutional disease.

Milk from an animal suffering from acute disease or infectious disease of any kind.

Milk from an animal suffering from abscess, inflammation, or painful swelling, or other affection of the udder.

Milk from an animal that has not completely recovered from the febrile state incident to parturition.

On the occurrence in an animal of any symptoms of acute disease, or a large and sudden diminution in the yield of milk, the milk should be set aside.

On the occurrence in the person or family of anyone employed about the cows or the dairy, of any eruptive or infectious disease at all, or of any throat complaint affecting three or more persons, the affected individuals should be isolated, and the fact notified to the health officer.

In most of the above requirements the milk-purveyor would be a gainer, as he would always be in a position to avail himself of responsible advice. Notification of disease need not, for obvious reasons, entail publicity, but in such cases the responsibility of the necessary isolation would devolve on the Medical Officer of Health.

I believe, indeed, inspections may be so carried out that the inspector would come to be looked upon, not as an interloper only borne with so far as the law demands, but as one in a position, under certain circumstances of disease incidence, to give advice, valuable from a commercial, as well as from a sanitary point of view.

Whatever differences of opinion there may be on technical points and matters of detail, I think that all who have carefully considered the subject will have formed a decided opinion that the adoption of regulations as to the sale of milk should be incumbent on local authorities, and not permissive, as at present, and that the regulations should be applied at the producing as well as the distributing depôts.

Hospital Reports.

REPORT OF PRESBYTERIAN EYE, EAR AND THROAT CHARITY HOSPITAL FOR MONTH OF JUNE.

By Herbert Harlan, M. D.,
ATTENDING SURGEON.

The dispensary work of this hospital has been carried on the past month under the great disadvantages attending the work of rebuilding. The patients having to gain access to the building through a small back door opening on Watson street.

There have been, however, a total of 1562 visits paid, making a daily average of 62 patients. There were 305 new patients entered on the books, and a total of 36 operations performed.

I have previously reported in this journal (vol. ix., p. 294 and p. 492) four cases of purulent ophthalmia, one clearly gonorrhœal, treated very successfully with powdered iodoform and a solution of atropine. To these I now add the following:

Case.—A. B., a child of four years was brought to the hospital June 12th, with a history of having always had "weak eyes," but that for a week past they had been worse than ever before. There were all the appearances of violent purulent conjunctivitis. The lids were red, swollen, puffy, glued together, and with thick creamy pus oozing out between them. Any exposure to light was very painful.

After cleaning the eyes very carefully with tepid water and a piece of soft sponge, by using a retractor to separate the lids, I found the right cornea bright and clear, but the left was decidedly hazy. A few

drops of an atropine solution were instilled and the whole surface of the conjunctiva was freely dusted over with finely powdered iodoform. Directions were given to clean the eyes every half hour and a solution of borax (gr. x.—℥i.), was given to be used frequently at home. The following day the discharge was less and the mother reported that the child had kept the right eye open a considerable part of the morning. The left cornea at this time was much clearer. The same treatment was continued and on the fourth day the child came with both eyes open and discharge stopped, though, of course, the lids were still red and the conjunctiva inflamed. On the 5th day I was out of town and the case was treated with nitrate of silver by one of the other surgeons, she not being aware of the previous treatment and history. This was continued several days being used (gr. v. ℥j.) once a day, and the borax solution frequently at home. The eyes are now well except some blepharitis marginalis which has probably existed a long time and was doubtless the cause of the "weak eyes" mentioned above.

As the eyes were out of danger and on the highway to recovery before any nitrate of silver was used, I think the favorable result can fairly be attributed to the iodoform *and cleanliness*, which latter I have before insisted is the most important element in the proper treatment of purulent ophthalmia.

Society Reports.

CLINICAL SOCIETY OF MARYLAND.

STATED MEETING HELD MARCH 7TH, 1884.

(*Specially reported for Maryland Medical Journal.*)

SEPARATION OF THE EPIPHYSIS OF THE FEMUR.—*Dr. R. Winslow* related the following case, which occurred at his clinic. A boy, æt. 11, while coasting on a "double-decker," received some serious injuries in one leg. He was taken home, remained in bed two weeks without any medical attention, then got up and came to the clinic walking some distance there and back to his home. Examination showed that there was some enlargement of the knee; the limbs were about the same length and shape, except that one leg was in a state of genu varum. At first it seemed a case of partial dislocation at the knee-joint, but the patella occupied its normal relations with the femur, and the condyles of the latter worked on the tibia being retained in the semilunar cartilages. The flesh on the inside of the thigh was flattened and sunken. No crepitus. The conclusion was that there had been separation of the epiphysis from the shaft of the femur, and union had occurred while the patient remained in bed. There was no pain, and no motion between the fragments. He had scarcely a limp, but could not stand on the affected leg alone. There was a projection on the outside of the thigh. The patient was placed under the influence of chloroform, when the fragments were separated, and the limb straightened and put into a plaster of Paris splint, extending from foot to thigh. No doubt the limb would heal in a perfectly normal condition.

In answer to Dr. Steuart, Dr. Winslow said there was no callus—none forms in separation of an epiphysis. He congratulated himself that there was no necessity for further operation, as the synovial sheath extends some distance above the joint, and there would be danger to it if an osteotomy had to be performed.

COMPLETE CLOSURE OF VULVA FOR PROCIDENTIA IN A PATIENT AGED 76.—HYDRAMNIOS.—*Dr. Chunn* reported the following cases:

I. The patient, æt. 72, presented herself two weeks ago complaining of pain about the pelvis. The uterus was procidented and excoriated; there was also cystocele and rectocele. Her last labor took place 23 years ago, and was followed by subinvolution. 15 days ago Dr. Chunn closed the entire vulva with ten stitches. Six days ago these were removed, when the union was found to be complete. The patient is now up and about, the uterus being well retained. Such an operation would be inadmissible in a young menstruating woman.

II. This patient was sent to Dr. Chunn by a physician for diagnosis. Her abdomen was immensely swollen, and she had much difficulty of breathing, the respiration being 45 per minute. She was said to be 5 months pregnant. Examination of the abdomen revealed fluctuation, with flatness in the centre, and bulging at sides. The diagnosis lay between dropsy of amnion, hydatiform degeneration of chorion,

and twin pregnancy. The first was decided on. Premature labor came on. An effort was made to puncture the membranes high up, but the membranes burst; there was a gush of water; an arm came down; this was succeeded by a second gush and the birth of a five-months twin fœtus.

"In regard to the treatment of these cases, I find most authors have little or nothing to say. In case the abdomen becomes immensely distended, accompanied by albuminuria, convulsions, œdema pedum, and asphyxia, it is recommended to rupture the membranes, and thus bring on labor as a means of terminating the difficulty. As far as the safety of the mother is concerned, the prognosis is good, but the induction of premature labor, under such circumstances, is generally fatal to the child. Where effusion into the amniotic sac is very great the fœtus is generally small and feeble, and may not survive even if carried to term. As a natural consequence, then, it follows in case of induced labor before the 7th or 8th month that the chances of the child amount to almost nothing. All the operations practiced before this period, and, indeed, after it, are almost solely to accomplish the safety of the mother. As far as I have been able to discover, nothing has been advanced as a means of saving the life of the child, nor has any suggestion been made by means of which, in a threatened case of abortion, the natural period of gestation might be arrived at. In many instances it is peculiarly desirable that a living child be born, and at the same time the danger to the mother's health may be so great from the reasons already mentioned as to make evacuation of the liquor amnii imperative before the child is viable. In such a case, having evidence that the fœtus is still alive, the following expedient occurred to me, by which it might be possible to save both mother and child, and as I have discovered no allusion to it in a number of standard text books, I advance the suggestion, without further apology, for what it may be worth.

Let the patient be put on her left side in Sims' position, and Sims' speculum be introduced. Let the operator then take a very small-sized aspirating needle, not larger than the needle of an ordinary hypodermic syringe, and slowly insinuate it through the os internum, and thence upward between the membranes and the uterine wall, finally puncturing the membranes some 2 or 3 inches distant from the os internum. Let the needle be connected with a rubber tube, and the tube connected with an aspirator. In this way, by creating a vacuum, a portion of the fluid may be very slowly withdrawn until the uterus approaches something like its normal size. The amount of fluid to be withdrawn might be made to depend upon the relief afforded the mother, the amount not exceeding what would be sufficient to reduce the uterus to the normal size at that period of gestation. The evacuation of the liquor amnii might be made to extend over some 6 or 8 hours of time, and by thus very gradually evacuating the uterus, contraction might not take place, and consequently abortion would not be so likely to follow. A full dose of opium would have the effect of keeping the uterus at rest, and the horizontal position would be advisable. It seems to me this slight operation itself would not be apt to bring on miscarriage, and if abortion in a certain proportion of these cases depends only upon the excessive amount of fluid in the amniotic cavity, it is reasonable to suppose that the evacuation of the proper amount might be of assistance in carrying the labor until term. In the ordinary method of rupturing the membranes to induce premature labor we have an escape of a natural quantity of fluid which is generally necessary to preserve the integrity of the child, and this escape is almost inevitably followed by the birth of the fœtus. Now, in hydramnios, we have an abnormal quantity of fluid, and the withdrawal of a sufficient amount would not in itself, I am inclined to think, be necessarily followed by labor, especially if practiced in the manner described. We know that in some cases small quantities of amniotic fluid are evacuated from time to time, and that the loss may not have any effect at all as far as the limit of pregnancy is concerned.

Cazeaux mentions a very curious case, and it is from the description he gives that the idea here spoken of was first conceived. In this woman pregnancy had advanced as far as the 6th month, with nothing abnormal as far as was observed. About this period she was taken with a watery discharge, which lasted all through the succeeding months of gestation, at intervals of a day or two, until labor came on *at term.* The amount of fluid lost

varied from a pint to a pint and a half a day! The physician in charge examined things carefully, and after the secundines were expelled found that in addition to the rupture made by the child's head in passing out there existed another well defined break in the membranes near the placental site, and it was this aperture through which the waters had escaped from time to time. The idea occurred to me then, that if in these cases nature herself indicated a way out of the difficulty, art might be employed to follow out the suggestion. It is in imitation of the facts here shown that it is advised to puncture the membranes some distance from the os internum, as the uterine wall would have a tendency to prevent any undue flow of liquor amnii after the withdrawal of the needle. In case the uterus was to fill again, the operation might be performed a second or third time. The operation of puncture through the abdominal wall has been done at least once as related by Cazeaux, and in this case both mother and child were saved. In this instance it seems there was no expectation of saving the child, as the operation was done entirely in the interest of the mother, but by good luck labor did not come on until sometime after the procedure, and the result was a living child—or in fact, to be more accurate, I believe it was a case of twins.

The cases here quoted, and the result obtained, would seem to show that the result of the experiment I have advocated might be equally successful, and I think it is worthy of trial for the following reasons:

1st. It would certainly relieve a case of impending asphyxia in the mother, accompanied by convulsions, albuminuria, etc.

2d. It might allow the pregnancy to go to term, and thus save a child which otherwise would be sacrificed.

3d. If it did no good, it could do no harm.

Dr. Browne said Barnes passes a curved stylet covered, puncturing the membranes with it high up, above the umbilicus. In Dr. Chunn's method the opening would become enlarged and the fluid might all escape. Referred to a case reported by Dr. C. Winslow, where an opening in the upper part of the membranes allowed the fluid to escape when the patient was in the recumbent position, but not in the erect.

Dr. Branham thought Dr. Chunn's suggestion better than that referred to by Dr. Browne, because of the danger in the latter of puncturing the placenta. In regard to the first case, of perineorrhaphy, recurrence of the procidentia is to be expected in all cases, although it may not so result in this old woman. Sewing the vagina up, entirely to the cervix uteri, promises better results than the ordinary operation.

Dr. Chunn said the smallness of the aperture makes a great difference in the rapidity of the discharge. In the first case reported the uterus was not larger than a hickory nut.

False Membrane in the Vagina in Pregnancy.—*Dr. Browne* reported the following case: A lady 7 to 8 months gone in pregnancy, complained of intense pruritus, over which local applications had no effect. Examination was then made when the vagina was found to be completely covered by a white pultaceous membrane like that of diphtheria. Being adherent to the mucous membrane, it was only removed by scraping it off with a curette. Dr. Browne knew of no such case reported anywhere in medical literature.

Polypus Uteri with Inversion.—*Dr. Michael* said that one week ago he received a telegram to come to the country to operate upon a uterine tumor which was said to be out between the patient's thighs; no further information was given. Upon reaching the case he found a sloughy tumor projecting from the vulva and characterized by considerable stench, for which camphor was being used. The patient was over 60 years of age. She said she had several times passed masses of flesh, that she had had some bearing down pains with hemorrhage and that an object came down in her vagina which she pulled out of the vulva, but could not detach entirely from its connections. Dr. Michael found that he had to deal with a polypus of the uterus, traction on which together with ergot administered previously had led to inversion. It was determined to remove the tumor and reduce the inversion. The former was effected with the ecraseur. The polypus weighed half to three-quarters of a pound. Not a drachm of blood was lost in the operation. The stump was about the size of a half dollar. One vessel only required torsion. The uterus had a black appearance but the tissue cut through looked healthy. Restoration of the inverted organ was then

attempted but found impossible, owing to the effect of the ergot. Not having proper assistance or instruments the uterus was returned to the vagina, the latter packed with wads of cotton, and the patient was directed to be brought to the city if she had any further trouble.

Dr. Chunn thought gradual pressure might have been of service, but no other operation under the circumstances would have been justifiable.

Many times the chief object to be secured in effecting reduction is a point of counter pressure which may be had by introducing two fingers into the rectum; even the whole hand, when small, has been used for this purpose. A large hand is entirely unsuited for this operation.

Dr. Browne said that Dr. Emmet practises traction in these cases of polypi, no matter if inversion do occur, so that the above case illustrates exactly his method. He, however, restores the inversion at once.

Dr. Michael said the above was the first and only case of inversion that he had seen.

Some Post-Mortems.—*Dr. E. R. Walker* then read the details of several interesting post-mortems which he had recently performed in the service of the city.

Bill for Regulation of Medical Practice in Maryland.—*Dr. Theobald* for the Executive Committee reported upon the above bill, now before the Legislature, and recommended that the Society take no action upon it.

Dr. Jas. A. Steuart said the bill was in the hands of the Committee to whom it had been referred in the State Legislature. He said that some changes in it were probable, but he thought it would pass.

Dr. R. Winslow offered a motion, which was adopted, to the effect that the Society approves the Bill for the Regulation of Medical Practice in Maryland, now before the Legislature, as presented by the Committee appointed by the late State Sanitary Convention.

Scarlet Fever in Child-bed.—Dr. Theophilus Parvin, of Philadelphia, in the July number of *The American Journal of the Medical Sciences*, records a case of scarlatina occurring in a woman soon after labour. He believes that the puerperal state increases the susceptibility to the germs of this disease.

Editorial.

M. Pasteur.—At this time there is not a more conspicuous character in the scientific world than M. Pasteur, the distinguished Frenchman, whose numerous experiments and investigations have awakened such universal interest. It may not be uninteresting to our readers to learn something of the life of this well-known individual. Louis Pasteur was born December 22, 1822. Early in life he began the study of chemistry and soon made important discoveries in this branch of science. He was made an assistant to the professor of chemistry at Strasburg, and subsequently at the age of thirty-two was made Dean of the Faculty of Sciences at Lisle. Whilst at Lisle he began the study of the subject of fermentation, and conducted the remarkable experiments which have opened up a new world to science in this field of research. His attention seems to have been drawn to this subject by the fact that the manufacture of alcohol was one of the chief industries in this department.

Later on he began to study the subjects of vaccination, of spontaneous generation, of wine, of the diseases of the silk-worm, of beer, chicken cholera, malignant pustule, septicæmia and quite recently of rabies. The vast light which he threw on these subjects, and the important and valuable facts obtained by his investigations, are well known.

His doctrine of an attenuated virus of certain malignant diseases of inferior animals has created a new revelation in medicine and led to most important and valuable discoveries which are being made manifest in other departments of scientific research.

In 1868, M. Pasteur brought on hemiplegia from overwork, from which he has never entirely recovered, the members of his right side being still impaired in motion. He has not discontinued his labors in consequence of this affliction, but, as is well known, has made some of his most important discoveries since 1868. In the conduct of his investigations he has been liberally aided by the French Government. The ancient garden of the old college Rollin was placed at his disposal and there he has stables for sick horses and diseased sheep, kennels for dogs with hydrophobia, and an abundance of hens, chickens, rabbits and guinea pigs for conducting his different experiments. It has been, by the liberal use of animals that M. Pasteur has been enabled to arrive at the valuable facts he has from time to time made known to the scientific world. That these facts have an incalculable value to science no one can deny. His experiments with charbon alone have been the means of saving

millions of dollars annually to the wool growers of France.

M. Pasteur's services have been liberally rewarded by pensions from the French Government, and the scientific world has accorded to him the highest distinctions within its gift.

As might be expected, M. Pasteur has aroused the enmity and antagonism of the anti-vaccinationists and those fanatics who deny the right of science to experiment with animals. Necessarily M. Pasteur has sacrificed the lives of many dumb brutes and inflicted in this way much suffering, yet we have his own word for it that in all vivisections the animals were chloroformed. He says: "Never have I had the courage to kill a bird in hunting; but when experiments are concerned no scruple stops me. Science has the right to invoke the supremacy of the end." Such language is well worthy of consideration by those persons who object to vivisections and vaccinations on the ground of unnecessary cruelty to animals. Such in brief is the history of the man who has been characterised by the famous American citizen, Mr. Henry Bergh, as a "merciless empiric."

Bergh on Pasteur.—That prince of fanatics, Mr. Henry Bergh, of New York city, has addressed a letter to the President of the Paris Society for the Prevention of Cruelty to Animals, in which he takes occasion to refer to M. Pasteur in the harshest language. Mr. Bergh says: "In the outraged name of science this merciless empiric is poisoning the flocks and herds of France after the fashion of his predecessor, the notorious Jenner, of England, who nearly a century ago commenced inoculating his countrymen with a noxious mucus taken from diseased animals, under the pretence of preventing and curing small-pox." Again, he says, "A French Jenner now crawls to the earth's surface and begins the fiend-like and disgusting work of polluting the bodies and flesh of the lower animals; moreover, it is proposed in the Chamber of Deputies to reward this man's detestable crime by voting him a pension also." Such is the estimate placed upon the work of Jenner and Pasteur by the great would-be philanthropist and benefactor of dumb brute creation. No one doubts the fact that Mr. Bergh is sincere and honest in the views he holds, and we would not attempt to underrate the value of his eminent services in the prevention of cruelty to animals. We think Mr. Bergh has greatly exceeded the limits of his useful sphere of action, and from the high position as a benefactor of brute creation has fallen to the lowest plane of fanaticism possible to be reached. Like many reformers Mr. Bergh would reform too much. In his earnest desire to carry out his views he has exceeded all bounds of reason, until he is simply a fanatic without reason. Herein lies the danger of fanaticism, which seems to take possession of many men of earnest character and purpose like Mr. Bergh. An ideal standard is erected, and every action must conform to this one-sided view of human conduct. Such men become intolerant and impatient of those who do not see as they see, and act as they act. In their earnest desire to carry out their own extreme views they are often guilty of the insane ravings which have so often escaped the lips of Mr. Bergh.

Medical College of Virginia.—We learn from the *Atlantic Monthly* that at a meeting of the Board of Visitors of the above institution, held June 6th, Dr. M. L. James was elected to the Chair of Practice, vice Prof. McCaw, resigned; Dr. Christopher Tompkins to the Chair of Obstetrics and Diseases of the Puerperal State, vice Prof. Coleman, deceased; Dr. Geo. Ben. Johnston to the Chair of General and Special Anatomy, recently held by Prof. Tompkins; and Dr. John N. Upshur to the Chair of Materia Medica and Therapeutics, just vacated by Prof. James. These gentlemen are all members of the Richmond profession, and have been connected with the school heretofore in one capacity or another. From what we know of these gentlemen we feel certain that the Board has acted very wisely in its selections.

On Muscular Hypertrophy of the Stomach.—Concerning this rare condition of the stomach there appears to be but little known, and it is not generally mentioned by writers on diseases of this organ, therefore the careful report of this case by Drs. Alex. Marcy, Jr., and J. P. Crozier Griffith, of Philadelphia, which appears in *The American Journal of the Medical Sciences* for July, 1884, has a special value. Unfortunately, the disease is rather of pathological than clinical interest, since there are no symptoms which are as yet known to be peculiar to it, and the treatment can only be palliative.

Miscellany.

On Opening and Drainage of Abscess Cavities in the Brain.—The antiseptic method of operating and after-treatment has not as yet been fully tested in operations upon the brain. This is natural, for not only have we inherited a just dread of dealing with an organ, the large majority of whose diseases are dangerous or fatal, but, our knowledge of the physiological functions of the brain and of their pathological modifications being extremely limited, we are not in a position to form such an accurate diagnosis as calls for surgical interference. Drs. Christian Fenger and E. W. Lee, of Chicago, in an extremely interesting paper on this subject in the July number of *The American Journal of the Medical Sciences*, consider the treatment of traumatic cerebral abscess, and report a case which was successfully treated by opening and drainage.

Bergman, in discussing the treatment of cerebral abscess, unhesitatingly sets it down as an axiom that wherever there is an accumulation of pus, trephining is most clearly and indubitably indicated, for the opening of an abscess in the brain is as necessary as in any other part of the body, and we would add even more so. A correct diagnosis of abscess having been made, the further difficulty presents itself of locating it with sufficient accuracy, so as to be able to find it. A number of cases are on record, in which a correct diagnosis had been made, the trephine also put on more or less at the right place, but the knife or trocar being passed into the brain, nevertheless missed the abscess. Drs. Fenger and Lee show by their case, that this difficulty can be obviated by multiple exploratory aspirations, performed at interstices sufficiently small to prevent any abscess from escaping detection, even if the trephine opening should not have been made at the point of the skull nearest the abscess.

There are on record a large number of cases of cerebral abscess, in which trephining was performed, pus evacuated, and temporary relief obtained; but later relapse followed, and a fatal termination ensued. It is possible, judging from the success the practice has met with in the treatment of abscesses in other situations, that drainage of the cerebral abscess-cavity, with or without washing out, would have saved some of these cases, by preventing the reaccumulation of pus and the continuous infection of the surrounding brain tissue, the acute œdema of which is well known to be, as a rule, the final cause of death. As far as Drs. Fenger and Lee are aware, draining and washing out of cerebral abscess-cavities has heretofore not been tried; that it can be effected and without any detriment to the patient, is shown by their case, the treatment of which they hold strictly conforms to the rational methods of modern surgery in treating abscesses in general; and because of this, and not because their patient recovered, they regard the case as answering affirmatively the question: Is it probable that abscesses in the brain can be treated advantageously on the same principles as abscesses in other parts of the body?

Persistent Omphalo-mesenteric Remains; their Importance in the Causation of Intestinal Duplication, Cyst-formation, and Obstruction.—The pouch-like formation of intestine occasionally seen projecting from the lower portion of the ileum, is universally known as Meckel's diverticulum. Not that this distinguished anatomist was its discoverer, but to him we owe not only the almost universal acceptance of his theory of the origin of the pouch in question, but are also indebted to him for calling conspicuous attention to its importance in the causation of serious disease. In an instructive and elaborate article in the July number of *The American Journal of the Medical Sciences*, Dr. Reginald H. Fitz, of Boston, considers this whole subject and points out that the view—that most, if not all well-authenticated instances of duplication of the intestinal tract, at any part of its course, are the probable result of the persistence and growth of the remains of the vitelline duct—is rendered highly probable from what is known concerning the development of the intestine. Attention is also called to cystic dilatation of the diverticulum. These retention cysts, as they are called, may have their cavity continuous or discontinuous with the intestine. Moreover, such cysts of possible intestinal origin are not limited to the abdominal cavity, having been observed in the vicinity of the œsophagus, in the abdominal walls, in the vicinity of the umbilicus. The clinical importance of these cysts is duly considered.

Dr. Fitz points out that the vitelline duct is composed not only of layers of tissue equivalent to those forming the coats of the intestine, but it is also accompanied by blood-vessels. The relation of these omphalo-mesenteric vessels or their remains to intestinal strangulation is fully discussed and the importance of bearing in mind the congenital nature of certain of the causes of acute intestinal obstruction is earnestly insisted upon. Dr. Fitz finds that—

1. Bands and cords as a cause of acute intestinal obstruction are second in importance to intussusception alone.

2. Their seat, structure, and relation are such as frequently admit their origin from

obliterated or patent omphalo-mesenteric vessels, either alone or in connection with Meckel's diverticulum and oppose their origin from peritonitis.

3. Recorded cases of intestinal strangulation from Meckel's diverticulum, in most instances, at least, belong in the above series.

4. In the region where these congenital causes are most frequently met with an occasional cause of intestinal strangulation, viz., the vermiform appendage, is also found.

5. It would seem, therefore, that in the operation of abdominal section for the relief of acute intestinal obstruction not due to intussusception and in the absence of local symptoms calling for the preferable exploration of other parts of the abdominal cavity, the lower right quadrant should be selected as the seat of the incision.

The vicinity of the navel and the lower three feet of the ileum should then receive the earliest attention. If a band is discovered, it is most likely to be a persistent vitelline duct, *i. e.*, Meckel's diverticulum, or an omphalo-mesenteric vessel either patent or obliterated, or both these structures in continuity. The section of the band may thus necessitate opening the intestinal canal or a bloodvessel of large size. Each of these alternatives is to be guarded against, and the removal of the entire band is to be sought for, lest subsequent adherence prove a fresh source of strangulation.

GASTROSTOMY, ŒSOPHAGOSTOMY, INTERNAL ŒSOPHAGOTOMY, COMBINED ŒSOPHAGOTOMY, ŒSOPHAGECTOMY, AND RETROGRADE DIVULSION IN THE TREATMENT OF STRICTURE OF THE ŒSOPHAGUS.—The frequency of carcinomatous obstruction of the œsophagus in middle life, and of cicatricial, or fibrous, stricture, particularly in subjects of tender years, has led Dr. Samuel W. Gross to collect in the July number of *The American Journal of the Medical Sciences*, the somewhat numerous and scattered instances of the various operations which have been practiced for their relief, and elaborately study and compare their relative value and disadvantages. To fulfil this object intelligently he has considered separately carcinomatous and simple strictures.

The four operations applicable to *carcinomatous stricture* are gastrostomy, œsophagostomy, internal œsophagotomy, and œsophagectomy, of which the first three are palliative, and the last curative.

From the consideration of 194 cases of operative procedure, Dr. Gross finds that gastrostomy has proved to be the simplest, most rational, and safest of the four operations for the relief of carcinomatous stricture. Increasing experience demonstrates that the results are growing better and better, which cannot be said of œsophagostomy; and there is every reason to believe that the successes will become more numerous if it is resorted to as soon as the diagnosis of the disease has been made, and before the powers of the patient are materially impaired. The few deaths do not constitute an argument against its adoption; while, "every recovery is a clear gain; and a fatal issue is simply the natural termination forestalled."

The operations which have been practised for *cicatricial stricture* are gastrostomy, œsophagostomy, internal œsophagotomy, combined œsophagotomy, and retrograde divulsion. Dilatation Dr. Gross holds is merely a palliative remedy, and sufficient time has not yet elapsed to test the value of divulsion through an opening in the stomach. Combined œsophagotomy for strictures near the cardia is only applicable to children, and may prove of value in strictures impassible by instruments introduced through the mouth. Internal œsophagotomy, if performed at all, should be reserved for comparatively recent and short strictures, and œsophagostomy is only applicable when the incision can be made below the obstruction. Gastrostomy he holds is the best and safest operation for simple stricture of the œsophagus.

From the great difficulty of managing *cicatricial stricture in children* by dilatation, which is due partly to the struggles of the subjects, and partly to the disinclination of the parents to distress the child, Dr. Gross holds that dilatation should be resorted to only when the inflammation has subsided, and the denuded surface is in a granulating condition. When the constriction is of some standing, and efforts at dilatation prove fruitless, gastrostomy will prove to be the safest and most beneficial operation for prolonging life.

Dr. Gross gives elaborate statistics, based on 271 cases, in regard to operative interference for obstruction of the œsophagus.

THEORIES OF COLOUR-PERCEPTION.—Dr. Swan M. Burnett, of Washington, D. C., elaborately discusses in the July number of *The American Journal of the Medical Sciences*, the various theories of colour-perception, and points out that none of them accounts in a consistent manner for all the phenomena of normal and abnormal coloured vision, and that, moreover, there are certain objections on physical grounds which, with our present knowledge of the laws of molecular and wave-motion, are insurmountable. He advances a theory which he thinks meets the requirements of the case in the light of recently acquired knowledge. He holds that it is essential to do away with the idea of the

retina as a differentiating organ, and that it should be looked upon simply as a receiving and transmitting structure which shall give up faithfully to the optic nerve the impressions made upon it by the waves of the luminiferous ether. These impressions are carried by the nerve to the brain and are there properly differentiated and converted into sensations. He believes that by this means all the phenomena of colour-perception and colour-blindness can be explained in a natural and consistent manner without the necessity of imagining new tissues, or novel or unusual reactions of these tissues to light. Dr. Burnett considers the retina to be a substance whose ultimate structure is such as to allow it to respond at one and at the same time to a large number of ethereal vibrations; at least such a number as shall be represented by the clearly distinguishable colours of the spectrum.

His theory, Dr. Burnett holds, explains the phenomena of defects in colour-perception, and receives support from biology and embryology.

Medical Items.

THE corrected proof of Volume V of the Index Catalogue of the library of the Surgeon-General's office, beginning with "Flaccus" and ending with "Heart," has been returned to the printers by Dr. Billings, and the volume will be put to press at once.=Dr. Fordyce Barker is reported to have said that he directs his nurses never to give a vaginal injection unless especially ordered, in the puerperal state.=The Commissioners of Charities and Correction, of New York, have bought 1,067 acres of land on Long Island on which to erect buildings for the chronic incurable pauper insane.=According to the official register just published, there are 4,475 physicians in the State of New York, 1,789 of which reside in New York city.=Twenty-five deaths from yellow fever are reported to have taken place in Havana during the week ending June 28th. =*The College and Clinical Record* says: "Prof. Gross never operates on menstruating women, if it is possible to avoid it," nor does any other sensible surgeon.=A suit has been entered against the Georgia Electic Medical College of Atlanta for $15,000 for violating the State law by graduating students who had not attended two full courses of lectures.=Drs. Christopher Johnston and Alan P. Smith, of Baltimore, and Dr. J. H. Jamar, of Elkton, and Dr. W. H. McCormick, of Cumberland, have been appointed an auxiliary committee for this State to receive subscriptions to the S. D. Gross Professorship of Pathological Anatomy. =Dr. Koch, it is said, predicts that the outbreak of cholera at Toulon will spread over Europe. He pronounces it genuine Asiatic cholera.=For the relief of intense itching, Dr. Startin, in the *Lancet*, recommends sponging the parts once or twice a day with pure rectified spirits containing one per cent. of carbolic acid.=Sir James Paget describes the pattern healthy man as "one who lives long and vigorously, who in every part of his life, wherever and whatever it may be, does the largest amount of the best work that he can, and when he dies leaves healthy offspring."=Small pox continues to increase in London, 332 new cases being admitted to the hospital during the week ending June 21st.=The Berlin Statistical Bureau is stated to be actively engaged in the preparation of a statistical account of all the hospital establishments of the German Empire, with special reference to their sanitary provisions.=A bill to regulate the future condition of medical practice in France is now lying before the French legislative assemblies. =The latest reports show a continued increase of cholera in Southern Europe.=The Health Department of this city has adopted plans for quarantining and fumigating all vessels from Mediterranean and other ports where cholera is known to prevail.=A candidate for license to practice medicine in North Carolina, (and by the way an unsuccessful candidate) when asked "who discovered vaccination?" replied "Virchcow."—*N. C. Med. Journ.*=There will be a special meeting of the Baltimore Medical Association at the Medical Hall, 122 W. Fayette Street, Monday July 14th, for the discussion of the summer diseases of children.

CHANGES IN THE STATIONS AND DUTIES OF THE OFFICERS SERVING IN THE MEDICAL DEPARTMENT U. S. ARMY, from July 1st, 1884, to July 7th, 1884:

Middleton, J. V. D., Major and Surgeon, ordered to relieve Surgeon B. E. Fryer from duty as Post Surgeon, Fort Leavenworth, Kansas, on or before July 1st.

Girard, J. B., Captain and Assistant Surgeon, ordered to relieve Surgeon W. E. Waters from duty as Post Surgeon, Plattsburg Barracks, Plattsburg, N. Y. Surgeon Waters upon being relieved, directed to return to his proper station (Madison Barracks, N.Y.).

Benham, R. B., First Lieutenant and Assistant Surgeon, from department of Dakota to department of Texas.

Gorgas, Wm. C., First Lieutenant and Assistant Surgeon, from department of Texas to department of Dakota.

Birmingham, H. P., First Lieutenant and Assistant Surgeon, from Fort Bayard, N. M., to Fort Bliss, Texas.

Promotions to date from July 2, 1884:

Glover Perin to be Assistant Surgeon-General, with rank of Colonel.

Andrew K. Smith to be Surgeon, with rank of Lieutenant Colonel.

Passmore Middleton to be Surgeon, with rank of Major.

Wales, Philip G., First Lieutenant and Assistant Surgeon, from Old Fort Colville, Washington Territory, to Fort Cœur d'Alene, Idaho.

Original Papers.

ETHERIZATION BY RECTUM; REPORT OF FOUR CASES BY YVERSEN'S METHOD.*

BY JOHN S. MILLER, M. D.

I desire to report four cases of etherization by the rectum, a method of producing anæsthesia first suggested by Dr. Axel Yversen of Copenhagen.

These cases were in my recent practice; and to Drs. Louis Jurist and A. B. Hirsh, I am indebted for assistance rendered, and for many of the observations made. In two of these cases the mucous membrane of the bowel was prepared for its respiratory function, as it ought to have been in all, by a restriction of diet and the use of purgatives. No preliminary hypodermics were used. The method of administering the ether was simple. A definite quantity was placed in a bottle (only partially filling it), was vaporized by a water-bath at 120°, and the vapor conducted to the rectum by a rubber tube, terminating in a recurrent catheter, the free or recurrent end being closed by pressure of the thumb during the inflation of the bowel; the expiratory act was performed by removing this pressure, and removing the water-bath.

The first case was one for minor operation, demanding only primary anæsthesia. This patient had not been prepared, and sufficient precaution was not taken against the introduction of ether vapor in too great a quantity, and of liquid ether, by an overboiling it the apparatus. Almost immediately he complained of burning and tenesmus, the abdomen became promptly and greatly distended, and there were colicky pains. In about one minute he noted the taste of ether. A portion of the vapor was allowed to escape, and no more was given. The pain ceased, intoxication soon began, and in six minutes he was sufficiently anæsthetized for operation. The pulse was full, and respiration was easy. Two minutes later he returned to consciousness, but seemed dazed. The struggling had been trifling. There was no vomiting, and no diarrhœa followed. One ounce of ether was used.

The second patient was an adult male, from whom I removed an exostosis of the vomer—an operation requiring full anæsthesia. In this case a sufficient laxative had been given the previous night. Two hours before the operation he had been allowed an ordinary breakfast. This patient, too, experienced a prompt burning and discomfort in the rectum, but at no time great, and soon ceasing. Ether was tasted in about two minutes, and noted on the breath. The abdomen seemed distended and some cramp-like pains were experienced. A considerable amount of vapor was then allowed to escape—with instant relief. After waiting two minutes without the development of further phenomena, a somewhat less amount of vapor was introduced, and (the catheter being withdrawn) was left for gradual absorption. The stage of excitement was short, marked by a pleasant delirium, and without motor activity. Full anæsthesia was obtained in eleven minutes from the first introduction of the ether vapor, and was perfectly maintained during the eight minutes of operation. Escape of the residual vapor was secured by a gentle kneading of the abdomen, and separation of the nates. The posterior nares not having been plugged, considerable blood regurgitated from the stomach after operation. This vomiting cannot, with any certainly, be attributed to the ether. No diarrhœa followed. An ounce and a half of the anæsthetic was used.

The third patient, also an adult, robust male, was subjected to acupresssure of the internal saphenous vein, with destruction by means of Vienna paste of several neighboring vessels—an operation also requiring full anæsthesia. He had received a laxative the day before, and an enema on the morning of operation, and had taken a moderate breakfast. The sensation of warmth and tenesmus was immediate, but soon ceased. The abdomen became distended, and he complained of epigastric pain. A partial escape of vapor was permitted, and he had instant relief. A few minutes later the bowel was again inflated, and the tube withdrawn. Enough vapor remained after withdrawing the tube, to produce complete anæsthesia in a total of fifteen minutes; and no further introduction was required to maintain it. There had been almost no stage of excitation and that with no other phenomena than an immoderate laughing. He recovered promptly. No vomiting or diarrhœa followed. A little less than two ounces of ether was used.

The fourth case was that of a medical gentleman in good health, whose love of science led him to volunteer a passive part in these experiments. This time the bowel had not been prepared, although an ordinary movement had taken place five hours previous. On introducing the vapor, there was a slight burning and tenesmus, but no cramps. Intoxication was soon induced, and the doctor seemed most of all to enjoy the proceedings. Pulse and respiration were normal. A lively peristalsis now put an end to this mode of administration, and terminated the experiment.

The only reason for quoting this case, is the evidence it furnishes for the necessity of preparing the bowel—a necessity which excludes

*Read before the Philadelphia County Medical Society, June 11th, 1884.

this method of etherization from our resources in accident and emergency cases.

This case completes the four, and I have had no other opportunities for observation.

Some question having arisen as to whether the vapor really does pass the ileo-cæcal valve, I deemed this a subject for legitimate vivisection; and etherizing a cat per rectum, opened the abdominal cavity, and noted that the small intestine was as greatly distended as the large.

In this method of etherization the most obvious advantages are as follows:

1. Dyspnœa is avoided and the patient is saved from the anxiety due to a sense of impending suffocation.

2. There is avoided the danger of simultaneous irritation of the superior laryngeal and pneumogastric nerves at the periphery—these irritations neutralizing each other in the respiratory centre, and suspending respiration entirely.

3. The danger of asphyxia is lessened—the patient not being drowned in his own mucus, and the integrity of the pulmonary mucous membrane as an organ of gas exchange, is preserved. Of course some vapor finds itself in the lungs, and acts there as a local irritant—elimination being by that channel. But the quantity is not great and does not constitute a source of danger. In the cases reported, the increase in secretion was too trifling for discovery.

4. The stage of excitation is therefore not prolonged by the struggles for breath. In general it may be said that the delirium of any alcoholic intoxication is a pleasant and good-natured one, unless the patient is crossed—as he certainly feels himself to be when a wet towel is pressed over his face.

5. Nourishment may be taken before operation to sustain the powers of life, and lessen the dangers from shock.

6. Return to consciousness is prompt—this stage not being prolonged by carbonic-acid poisoning.

7. The anæsthetic seems as readily suspended as by the ordinary method—the bowel being promptly emptied by gentle massage.

8. Economy in either is an advantage hardly to be mentioned with more important considerations.

The more obvious disadvantages are:

1. The exposure of person required—the abdomen being necessarily under observation, even if the catheter be inserted under cover.

2. More judgment and experience is required in the administration than by the ordinary method—over-boiling in the apparatus and too much distension, being both painful and highly dangerous. The warning to cease is sudden, and must be immediately obeyed

3. Just as the other mode is inconvenient in oral surgery, so in perineal operations is the apparatus needed for this method, in the way.

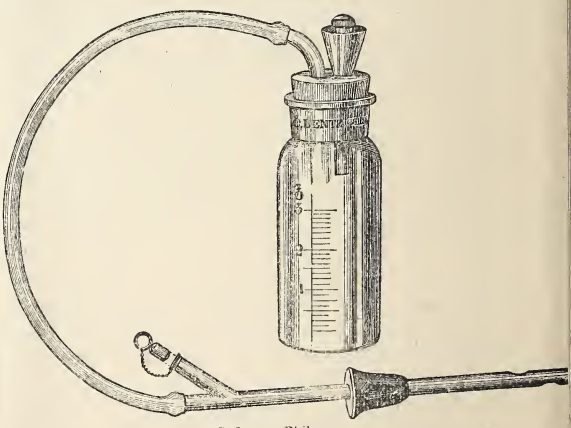
4. In abdominal surgery, or if there be marked intestinal lesion, this mode is contra-indicated.

5. The inapplicability in cases of accident and emergency, when time cannot be allowed to prepare the bowel, has already been mentioned.

6. Diarrhœa has been noted in seven out of the thirty-seven cases on record, though in none of mine.

I believe this sequel is due to pre-existing intestinal lesion, to the lack of preparation, to a too great distension of the bowel, or to the accidental introduction of ether in liquid form. Furthermore, my method has differed from that of other experimenters in this respect, that instead of allowing the vapor to remain indefinitely, I secured a constant change by using a recurrent catheter, and introducing a certain quantity, or permitting it to escape, as indicated.

Other points of advantage and disadvantage may occur in later experience, and to other observers, and new dangers may be discovered. But I am convinced that this method is worthy of further trial, and will find its place in surgery, fulfilling its own, though not *all*, indications. Like all else in therapeutics it must pass through the stages of bungling use, condemnation, and revival.



C. LENTZ, Phila.

(Dr. Miller then exhibited a form of apparatus which he had had made by Chas. Lentz & Sons, No. 27 South Tenth Street, for this purpose. It consists simply of a water-bath, a graduated bottle provided with a funnel and valve for pouring in the ether, and a supply-pipe for conducting vapor to the rectum. This tube terminated in a straight recurrent catheter, the exhaust channel of which is controlled by a valve. The catheter is furthermore provided with a movable collar for pressure against the anus—it having been found that the vapor tends to escape by the side of the tube.)

834 North Nineteenth St., Philadelphia.

AMPUTATION OF RIGHT LEG AND THIRD, FOURTH AND FIFTH METATARSALS OF RIGHT FOOT.*

BY WILLIAM S. JANNEY, M. D.

Mr. Clarkson, a colored man, æt. 41, was admitted to the Surgical Department of Philadelphia Hospital, December 26, 1883. He was a driver for the Messrs. Bumm, salt merchants of this city. He was exposed to the intense cold of the third week of last December. A few days before his entrance to the Hospital, he noticed that his feet were swollen; he cut his shoes and continued to work until the 22d. On the 26th, both feet were swollen, the left the most, with the characteristic appearances of gangrene. In a few days sloughing commenced, and charcoal poultices were applied. On the 9th of January the line of demarkation on the left ankle was evident. On the 16th of January the line was deeply cut, and had begun to form on the right foot from the second interdigital web backward to the base of the fifth metatarsal. On the 16th, the left leg was amputed four inches above the ankle-joint, by a double tegumentary flap operation.

The stump was dressed with carbolized oil, and syringed out with carbolized water, 1–40, daily. The patient's general condition was bad.

At the end of the fifth day the wound was dry, and gangrene had destroyed half the upper and nether flaps. The mortified portion was cut off with scissors, the edges of the flaps were approximated with wire sutures and straps of rubber adhesive plaster, which the intentional redundancy of the flaps permitted, the wound healing without accident.

The tissues of right foot continued to slough. On the 6th of February it presented the following appearance: The third, fourth and fifth metatarsal bones and their phalanges were completely denuded, except the tendons of the extensor muscles, which remained attached to their respective insertions.

In consultation with my colleagues, it was thought that no operation short of Chopart's would be likely to succeed, as the remaining integument and underlying tissues covering the first and second metatarsal and their phalanges were infiltrated and boggy, indicating a very low vitality.

Mr. Clarkson was very desirous of having as much of his foot saved as possible, and with his approval I disarticulated the third, fourth and fifth metatarsal from the tarsal bones, leaving an open wound, which was dressed the first twenty-four hours with carbolized oil. Gangrene speedily appeared in the wound; a poultice of tar, iodine and flaxseed was crowded between the gaping edges; in three days the wound was clean and full of granulations; the wound was then dressed with a solution of bichloride of mercury, 1–1000; straps of adhesive plaster were applied, so that the edges were gradually approximated. At present the left stump has healed entirely, except a slight break, through which a necrosed portion of the bone was removed; the right foot has healed; the foot is in the condition of slight varus, but is very serviceable; the man's general condition is good.

The internal treatment was quinine, iron and chlorine water.

*Read before the Philadelphia County Med. Society, April 16, 1884.

PUERPERAL SEPTICÆMIA TREATED BY LOCAL ANTISEPSIS.

BY H. D. FRY, M. D., WASHINGTON, D. C.

Tuesday, April 22nd, 1884, Mrs. J., æt. 21 years, III Para, was taken in labor about 7 o'clock in the morning. I saw her at 10.30. The pains were moderately severe, and the os was dilated to the size of a silver dollar. The labor progressed slowly until the membranes broke, which occurred before complete dilatation of the os. Hard bearing down pains then came on, and the infant was born one hour afterwards Placenta and membranes came away intact. I remained with the mother several hours after delivery because of a slight hemorrhage. The uterus was well contracted.

When seen that evening and the next day her condition was satisfactory with the exception of a quickened pulse.

24th.—She felt well.—Pulse 108, temperature 99.2; mammary glands distended.

25th.—12 M.; temperature 100.2°; lochia offensive; vaginal injections of a solution of carbolic acid ordered t. i. d.; liquid diet.

26th—5 P. M.; temperature 103.2°. Had headache and felt badly. Fifteen grains of quinine at 8 P. M.

27th.—Temperature A. M. 99.4°, P M 103°. Quinine repeated, ten grains at 8 A. M. and twelve at 3 P. M. Lochia not so free; purulent in character, and had an offensive odor.

28th.—10 A. M., pulse 124, temperature 100.4° Slept well and felt better. Lochial discharge had the same character, I gave an intrauterine injection of a solution of carbolic acid and hot water—one-half of one per cent. The returning fluid contained first pus, and later was slightly bloody with a few blood clots and some shreds of tissue. Speculum introduced at beginning of injection, and about half an ounce of foul-smelling pus was found bathing the cervix. The cervix was excoriated and the seat of a stellated fissure, on one lobe of which (posterior) was a raw, pus secreting surface. The vagina was thorough-

ly cleansed and the surface of the os wiped with carbolic acid, one part, and sweet oil three parts. Tampon of absorbent cotton inserted. 12 M., vaginal injection. 2 P. M., pulse 106, temperature 101.2°. Intrauterine injection; fluid returned clear at first and afterwards tinged with blood.

Same treatment applied to cervix. Half an hour later the temperature had dropped to 99.4°. Quinine, eight grains. *The vaginal injections were directed to be repeated every hour*, and one drachm of pulv. alum added to each pint of carbolic acid solution. 9 P. M., pulse 116, temperature 102°; intrauterine injection. Returning fluid clear except, at first, there was a rusty purulent looking discharge. Os touched with the carbolic acid and sweet oil. 9.45 P. M., temperature had fallen to 101.4°.

29th.—Patient passed a comfortable night, but did not feel so well. Lochia passed during the night was thinner and had much less odor. 12 M., pulse 104, temperature 100.7°. Intrauterine injection administered; fluid perfectly clear but contained a few shreds of white mucus. Appearance of the cervix greatly improved. Vaginal injections once in two hours. 2 P. M., temperature down to 99.8°. 6.15 P. M., pulse 104, temperature 100.8°. 10.30 P. M., temperature 100°.

30th.—Discharge had very little odor. A. M., pulse 107, temperature 98.8°. 5.30 P. M., pulse 104, temperature 99.2°. Vaginal injections only.

May 1st.—A. M., pulse 82. temperature 98.8°. P. M., pulse 86, temperature 97.8°.

After this there was no return of fever, and the patient convalesced rapidly. The vaginal injections were continued for several days but the intervals gradually lengthened.

The history of this case demonstrates several points. It shows the value of local antiseptic treatment in puerperal septicæmia, and the great importance of an inspection of the genital tract after labor in such cases.

The rupture of the bag of waters and the occurrence of bearing down pains before complete dilatation of the os, and the hemorrhage after delivery—even when the uterus was contracted—point to laceration of the cervix and its cause.

The prevalence of scarlet fever in Washington at the time of this patient's confinement may have had some causal relation to the attack.

I had visited several bad cases of the disease before being called to see Mrs. J., and two children were affected with it in an adjoining house.

It may be said that at this late day there is no necessity to speak of the good effect of antiseptic treatment in puerperal septicæmia. The recent paper of Dr. Thomas has done, and will do much, no doubt, to popularize this method of treatment, but it is nevertheless true that, as yet, it is by no means the orthodox treatment of the disease.

Many physicians have not accepted or have not put the principles into practice. Some are deterred by fear. They dread to invade the sacred portals of the internal os, even though they may feel assured that within that uterus it is as foul as a sepulchre filled with dead men's bones. Others, again, are slow to take up anything that is new; and, another class, more culpable than either, hesitate because such a course of treatment is more troublesome and requires more of their valuable time than would be the case if they prescribed medicines and directed vaginal injections.

In the case here reported it is believed that the chief source of infection was at the site of the lacerated cervix; although, it is true, that each intrauterine injection was followed by a drop of the temperature. After the third injection the fluid was returned clear, and after the fourth they were discontinued altogether, and frequent astringent and disinfectant vaginal injections used instead. The fever began to decline, and continued to do so, after local antiseptic treatment was commenced, and reached normal on the third day. Experience has shown that when infection took place within the uterine cavity the fever would increase, or even recur if the intrauterine injections were suspended too early.

Lacerations of the genital tract, at the cervix, in the vagina, or even at the vulva, may be points of septic absorption, and consequently intrauterine injections of antiseptic fluids would not meet the requirements of such cases. The speculum should be introduced in all cases of puerperal septicæmia, and in nearly all, the cervix will be found swelled and excoriated. In a fewer number lacerations will be observed.

It is not argued that this is always the seat of the mischief; it is so in only a minority of cases, but in all the congested and angry appearance of the neck of the womb improves *paripassu* with the condition of the patient.

Under all circumstances I have found the use of a speculum to assist very materially in the administration of intrauterine injections, except when the case is complicated by an anteverted uterus and the os is, in consequence, situated back in the hollow of the sacrum.

The method of giving these injections as practised by Thomas has one great objection, especially when required to be repeated often, and this is the annoyance and exhaustion to the patient caused by moving her across the bed.

The use of the bed-pan obviates this difficulty, and, if the nurse has everything in readiness for the physician, very little delay accompanies the employment of intrauterine injections by this method.

Society Reports.

PHILADELPHIA COUNTY MEDICAL SOCIETY.

STATED MEETING HELD JUNE 11TH, 1884.

(*See p.* 221.)

DISCUSSION ON ETHERIZATION OF THE RECTUM.

Dr. O'Hara: I do not think I would use this method. I see no advantage in it over administration by the mouth. It involves more risks. The ether has to go through the portal circulation, and penetrate in that way through the entire system. A good deal of local irritation will be produced, and the method might be followed by congestion of bowel. For operations above the mouth and throat it may possess advantages of convenience over the ordinary method, but a case of hare-lip operation has recently terminated fatally.

Dr. Levis: I have had no experience in this method, but I have watched the progress of it. The main objection is the irritating quality of ether. Other anæsthetic vapors are not so irritating, and it might be well to try the action of some of these.

Dr. Nancrede said: Although I have had no experience in the rectal method of inducing anæsthesia, yet I fully recognize that the ordinary methods of administering ether are unsatisfactory, and therefore I welcome the paper of the evening as a step in the right direction, *i. e.*, the endeavor to discover some more satisfactory method of inducing anæsthesia. The rectal method, however, is infinitely less safe than by the mouth; one, if not more, deaths having been acknowledged in a few dozen cases—probably less than twenty-five patients in all having been experimented on—while about one death in 23,000 was the mortality usually given for etherization by the air-passages. The rectal method evidently requires much more skill and special training than the ordinary method. Anæsthesia I always considered a dangerous state, and I think that the usual custom in our American hospitals of entrusting the administration of anæsthetics to the junior member of the house staff, is a reprehensible practice. Instead of giving the anæsthetic into the hands of the least experienced resident, it should be intrusted only to the most experienced.

Dr. Davis: In etherizing there are two things I am afraid of, suffocation and collapse. The former is usually readily avoided by attention to the tongue and the use of a gag to open the jaws; the latter is more serious—it occurs most readily in strumous children. In the University clinic there are constantly being performed operations on just such cases, resections and the like. In these strumous cases, particularly if the operation is a severe one, the depression is very marked. I have seen the temperature fall as low as 94°, recovery ensuing. If collapse threatens, the first thing to do is to withdraw the ether. If it is being administered by the mouth this can readily be done, but not so if it is being given by the rectum. In one of the cases related by the author, anæsthesia continued for a time after the withdrawal of the anæsthetic, and this is just what is to be feared in this method of giving ether. If symptoms of collapse supervene we cannot withdraw the ether from the bowel, and the anæsthesia must increase with a possibly fatal result.

Dr. Albert H. Smith: The cases offered by Dr. Miller are not sufficient to establish the advantage of this method. Perhaps in operations requiring but a few minutes, the method may answer, but how about cases in which the administration must be kept up for an hour or more. Anæsthesia is always to be considered a dangerous condition, but there is no special danger in a short anæsthesia if the material used is pure and carefully used. I cannot see any advantage in the rectal method. There is a serious æsthetic objection to it. In operations about the mouth it may be convenient, but here we can use other anæsthetics. I do not think that there is any difference in the action of the ether in the two methods. The ether must always act through the nerve-centres. The difficulties of dyspnœa and irritation may be all avoided by the use of morphia hypodermically before the operation. In reference to the relative danger of ether and chloroform I may say that I have seen much more alarming symptoms from the former than from the latter. I have abstained from using chloroform, in many cases, not because I thought it unsafe, but because I knew that if death occurred under its use, the anæsthetic would be made to bear the blame, while if ether were used it would not be charged with the accident.

Dr. W. R. D. Blackwood: To my mind the method is useless and objectionable. The mortality directly attributable to its employment is enough to prohibit the practice. I have no experience in the human subject yet, and would not have hereafter. I was asked to notice the subject in a medical journal, and made two experiments in order to learn something of the method. In one case the animal's abdomen was enormously distended, and the vapor *could not be removed* by simply affording free exit by a tube per anum, or by auxiliary external pressure; the vapor undoubtedly got beyond the ileo-cæcal valve, and was retained. We know nothing about the ability of the rectum to absorb gases; that is not its

function. We cannot control retained vapor in the bowel; the procedure is dirty, offensive to all, and unjustifiable. Like all new things, too many in the profession will run wild over this plan for awhile, and then drop it for the last novelty, without regard for its utility or real worth.

Dr. Miller, in closing the discussion, said: The design of this paper, which I had supposed obvious, is the contribution of certain data to the subject of rectal etherization, and a formulation of the more obvious advantages and disadvantages. The attempt to strike a balance of the same I deem as yet premature. The mechanical dangers of overdistension. the difficulty of emptying the bowel of vapor, when a suspension of the anæsthesia is desired, and the greater caution needed in the administration—all these points I had already mentioned in my paper.

There are only two points to which I would further allude, viz:—

First, as to rate of elimination: This taking place by the lungs, no matter how introduced, would be more rapid than when the agent is inhaled, inasmuch as by the new method the pulmonary mucous membrane is preserved intact, and therefore more capable of osmotic function than if bathed in mucus, as by the ordinary way.

A more serious objection has not yet been referred to—one based upon theoretical considerations. The experiments of Paul Bert—now already classic—have demonstrated:—

1. That the degree of anæsthesia depends not upon the absolute amount of the agent used, but upon the percentage in the blood, and therefore on the tension of the vapor in the *atmosphere inhaled.*

2. That the percentages needed to suspend respectively the functions of animal and organic life bear a definite ratio to each other—a ratio constant for each of the known anæsthetic agents, and for each species of animal and for each human individual. All between the two percentages mentioned, is termed the *manageable zone.*

3. That most, if not all, the undesirable effects of an anæsthetic, are due to leaving this zone.

4. That the greatest safety is therefore in mixing the gases beforehand—as has long been done by Mr. Spencer Wells.

If now, ether be given by the rectum, it will be readily seen that the gauging can only be by absolute quantity, and not by the percentage actually in the blood. We could never know how near this zone is to being exhausted. To my mind this is the most serious objection that can be offered.

HENRY LEFFMANN, M. D.,
Reporting Secretary.

PHILADELPHIA CLINICAL SOCIETY.

STATED MEETING HELD JUNE 27TH, 1884.

The President, *Dr. Henry Beates, Jr.*, in the chair.

Dr. G. Betton Massey read a paper on

TRAUMATIC SCIATICA AND ITS RELATION TO HIP INJURIES.

Details of six cases were related, in the majority of which the sciatica had been overlooked while attention was directed to a search for osseous injury. In the first case he was called in consultation to see an aged gentleman who had fallen on an icy spot of pavement eleven days previously. In falling he struck heavily on the left hip, and it was with difficulty that he arose and walked home—a distance of four and a-half blocks. His family doctor, a prominent physician and an expert diagnostician, when called in, searched diligently for fracture but could find none; notwithstanding the evident helplessness of the limb and the attacks of excruciating pain that was made worse by movement. At the time he was called in the physician had about concluded that the pain must be imaginary.

On examination the absence of any kind of fracture was apparent. The patient could lift the limb but a few inches from the bed. He was suffering from continuous and severe pain, felt most at points corresponding to the sacro-iliac notch of the affected side; the rear of the head of the fibula; and the rear of the external malleolus. The pain was aggravated by any movement, but especially by flexion of the thigh and extension of the leg. It was clearly a case of sciatica caused by contusion of the nerve in falling.

At the request of the medical attendant the reader of the paper joined him in the care of the case and applied the continuous descending galvanic current to the affected nerve, ending each sitting with a series of muscle-contracting interruptions of the current; great gentleness being required at first to avoid aggravating the pain temporarily. Good effect was manifest after the first visit, and eleven applications sufficed to establish a complete cure—recent careful inspection failing to detect either awkwardness of gait or atrophy of the posterior muscles.

CASE II was that of a German woman aged 73. On the 15th of January, 1883, she fell on the ice, fracturing the neck of the femur outside the capsular ligament. After being totally neglected for two weeks a member of the family asked the reader of the paper to take charge of the case. He found the limb 1¼ inches shorter than its fellow and greatly everted. At the seat of injury the great tro-

chanter was lost in an abundant deposit of callus. No crepitus could be found. Great pain existed throughout the distribution of the large sciatic nerve, being especially felt in the peroneal and posterior tibial branches. Considering the age of the patient and the attempt at union already made by unaided nature it was deemed unwise to interfere with the broken bone, so remedial efforts were entirely directed towards the relief of the sciatica A series of blisters were directed; chloroform injections made; various stimulating and anodyne liniments applied; together with the internal administration of opiates and sedatives, but he felt bound to say the case seemed slowly to improve without being affected by any of these remedies. Electricity was not used as the patient was too far from the office to make it possible to apply it with sufficient frequency, and the friends declined to have her removed to a hospital. The pain continued over a year in gradually decreasing severity, and though the patient has now been able to walk with crutches for some months there is much atrophy of the muscles supplied by this nerve.

The remaining four cases were selected from the large number of cases of sciatica treated by the writer at the electric clinics o. the Orthopædic Hospital and Infirmary for Nervous Diseases.

Case III.—A healthy hod-carrier was sent from Dr. Wharton Sinkler's clinic Nov. 16th, 1881. Seven weeks before, while carrying his usual burden up a ladder, the right foot slipped on a stick and threw the thigh into extreme flexion. He immediately felt an acute pain at the point of emergence of the sciatic and following that nerve down the thigh into the peroneal. It was sharp and pricking in character and had remained continuously present since the accident, being worse at night. He was unable to walk more than a block at a time, and presented a gait markedly characteristic of sciatica. No atrophy was found. He was placed upon static electricity, positive sparks being drawn from the painful points and course of the nerve. After the fifth application it is noted that he was much better; after the twelfth that he walks three miles to the hospital, and after the twenty-second application he was discharged cured.

Case IV.—A carpenter, aged 68, was sent from Dr. Sinkler's clinic Sept. 29th, 1880. A healthy man eight months before admission, he fell on the ice, striking the right hip. He was compelled to remain in bed six weeks suffering from pain in the region of the small and great sciatics. His physician was uncertain whether fracture was present or not. On examination the gluteal and flexor muscles of right leg were found much atrophied. He complained of great pain in the course of right sciatic to knee, and also in the distribution of the external peroneal. At times felt some pain in left leg. He was placed on the constant galvanic current thrice weekly. At the end of forty-two applications he is noted as entirely well.

Case V.—A man aged 40, was sent from Dr. S. Weir Mitchell's clinic May 6th, 1881. Four months before he had fallen and dislocated his right hip. This was reduced shortly afterwards and he remained in the hospital eleven weeks, during which time, and up to his appearance at the clinic, he suffered from much pain throughout the sciatic distribution of that side. There was considerable atrophy of the buttock and limb—a difference of one and a quarter inches being found six inches below the trochanters. He was placed upon 5 gr. doses of potass. iodide and the constant current thrice weekly. After thirty-five applications of the battery and considerable quantities of the iodide it was found that the pain had ceased but that some atrophy remained.

Case VI.—A porter, aged 39, was sent from Dr. Mitchell's clinic June 30th, 1881. Fifteen months before he had been crushed between a platform and a moving car, fracturing the pelvis on the right side. At his first appearance at the clinic some crepitus was still present, and there was 2 inches shortening of the right leg. He complained of much pain in the region of the sciatic nerve of the right side, which was increased by motion and exercise. He had been blistered and was taking 5 gr. doses of the iodide when sent to the electrical clinic. After twelve applications of galvanism, with some benefit, the summer vacation compelled a discontinuance and he did not reappear in the autumn.

The obvious conclusions to be drawn from these cases were stated as follows:

1. Surgeons called to cases of hip contusion or suspected fracture should not fail to search for evidences of injury to the delicate nervous structures here situated.

2. If such evidences of nerve injury are found, prompt and energetic measures of relief are indicated, the importance of which is emphasized by the complete and rapid recovery of the two cases which were treated early.

3. Of the four remaining cases one was distinctly benefitted and two cured by more or less long-continued (one to five months) galvanic treatment. The fourth did not receive galvanic treatment and was fully a year in duration.

Dr. E. E. Montgomery inquired how many cells had been used in the treatment. He thought that, considering the usual obstinacy of the class to which the cases related belonged, due to the inflammation of the sheath

of the nerve, the treatment had been satisfactory.

Dr. L. Brewer Hall related the details of a case similar to those described which had been caused in a lady by a fall from horseback alighting on the seat. The pelvis was fractured and a long continued sciatica supervened.

Dr. Massey, in closing the discussion, said that the number of cells used varied from 20 or 30 to 50, the kind being the gravity cell, which, owing to great internal resistance and the nature of the elements used, did not furnish as much current per cell as the zinc and carbon batteries charged with acid. The number used was largely regulated by the varying resistance of the skins of different individuals, some skins permitting a free flow of the current while others presented an almost insurmountable obstacle. It is to be regretted that the inventors have not as yet presented us with an instrument that will conveniently inform the operator of the true amount of electricity passing at a given moment. An approximation, however, to accurate dosage may be made by including a galvanometer in the circuit, or even by observing the sensations of the patient. Since the date of these cases he had used the static form of electricity in many cases of ordinary sciatica and found it at times equally efficacious as galvanism as well as more convenient.

Dr. Du Bois called attention to the value of *Bals. Peru*, as an application for *fissured nipples*. It should be applied after nursing about four times daily.

Dr. Hall, on behalf of the committee on Microscopy, presented an improved clinical microscope, which combined all the features of a clinical with those of an ordinary table stand.

BALTIMORE ACADEMY OF MEDICINE.

STATED MEETING HELD DECEMBER 4, 1883.

(*Specially reported for Maryland Medical Journal.*)

The Society met at 8.30 P.M., the President, Dr. F. T. Miles, in the Chair.

Chronic Anterior Pollio-Myelitis in a Child.—*The President* exhibited a girl 9 years old, who had been affected for six months with partial paralysis of the arms and legs. The affection, according to the mother, began, with violent pains in the stomach, accompanied by fever. Then there occurred a weakness of the limbs beginning in the lower, which very gradually increased until after months it had seriously impaired the power of walking and the use of the hands. Dr. Miles considered the case one of chronic anterior poliomyelitis. The acute form of the disease is quite common in children, but the chronic form is very rare, and only a few cases have been recorded of it. The case presented the following symptoms, characteristic of the affection: The muscles, especially of the forearms and hands, the legs and feet, were atrophied. Patella reflex existed, the muscles of the thighs being not, or but slightly affected. There was no ankle clonus, and tickling the soles produced no true reflex movements. There was degenerative reaction, neither the nerves nor muscles replying to the faradic current, while there was exaggerated response to the galvanic current when applied to the muscles. Sensation was not impaired. Bladder and rectum entirely unaffected. All these were the symptoms observed in acute poliomyelitis, but in this case they had taken a long time to develop themselves. The paralysis had begun in the legs, gradually increased and then invaded the upper extremities.

The youngest case of this affection reported by Erb was æt. 15. Ross reports a case at 8 which he pronounces unique. Erb's case recovered, apparently as the result of the use of the battery. The same result is expected here. The battery is applied three times a week, and directly to the spine—the seat of disease.

Dr. Steuart recollected a case in a child 5 or 6 years old, which presented similar symptoms to those in the child exhibited by Dr. Miles. It occurred thirty years ago, and the patient recovered completely.

Dr. Miles said that Landry's paralysis is apt to be mistaken for the disease in question.

Dr. Wm. Lee said that in that form of paralysis, occurring in childhood and exhibiting itself usually first when the patient awakes from sleep, he had always been able to find evidence of rheumatic trouble and to cure it by anti-rheumatic medication.

Dr. Miles said in rheumatic cases there is a neuritis which may always be expected to get well. Rheumatic paralysis generally arises from cold. There is nothing better in the treatment of these cases than the constant current. In older persons a very common form of paralysis is that which arises from sleeping on the arm, especially

observed in cases of drunkenness. Ordinarily we move at intervals during sleep, but in the deep sleep of drunkenness this is not the case. Dr. Miles said that he applies the battery immediately in cases of paralysis. In railroad spines the injury is general, and there is no degenerative reaction, no wasting. Multiple neuritis may affect all four limbs at or near the same time. Lead paralysis is distinguished with difficulty from the disease in question, the resemblance being very great; the external symptoms must often decide. No post-mortem in a case of lead poisoning is on record which was made early enough to determine whether the lesions are similar or not.

Dr. McSherry referred to the case of a man, engaged in working in iron in New Mexico, who had a wrist-drop; it was limited absolutely to one forearm. He had been much exposed to vicissitudes, but there was no evidence whatever of lead poisoning. He got well under treatment with iodide of potassium, arsenic and tinct. of nux vomica, aided locally by electricity, by stimulating frictions and mechanical support.

Dr. Miles never saw such a case where the paralysis was limited to one member. There is a tendency to paralysis of certain nerves, as, *e.g.*, Bell's paralysis, and paralysis of the musculo-spiral nerve (which raises the arm); the latter is very frequently from pressure or injury. The motor fibres of a nerve may be affected alone. Motor nerves are affected more frequently than sensory.

Removal of Inferior Turbinated Body for Obstruction of Nostril.—*Dr. John N. Mackenzie* exhibited the left inferior turbinated body, which he had removed entire from the nose, as a substitute for operation on the deflected septum. Two years before he had advised removal of the inferior turbinated body, and, if necessary, bone of the *obstructed* side, in certain cases where the deflection affected the bony septum far back, and where, from its deep situation, the ordinary operative procedures could only with great difficulty be carried out. In the present case, the deviation consisted in an irregular projection of the inferior border of the vomer, which extended more than half the length of the bone, and which, together with the opposing turbinated structure, caused complete obstruction of that side. The turbinated body was removed by encircling its posterior end with the snare, and stripping it off from behind forward. Hemorrhage and pain were slight. In a few days patency of the nostril was secured through the contraction of the divided tissues. In presenting the specimen, Dr. Mackenzie wished to call the attention of the Academy to this operation, as an excellent one in certain cases, which would otherwise be left to take care of themselves.

Fibroid of Uterus.—Result of Operation for Inversion of Uterus.—*Dr. Browne* reported the case of a woman, æt. 39, who for four years past has had menorrhagia. She would have a constant discharge for three weeks, and then partial intermissions only for the remaining week. She was very anæmic. The uterus was very much enlarged, the cavity measuring 3½ inches. A fibroid tumor was diagnosticated. The cervical canal was then dilated, first by tent, then by Sims' dilator, and the tumor pulled down by successive volsellum forceps until the pedicle became stretched to a mere thred and finally gave way; the uterus assisting in the expulsion.

Dr. Browne also reported the result of the operation for inversion of the uterus previously described by him. The patient has recovered and returned home. The cervix at the time of her departure had contracted almost to the normal size. The stoutness and puffiness about her waist during the inversion disappeared in a short time after the operation. For the first few days there was slight hemorrhage and some purulent discharge. There was no leucorrhœa or vaginitis at the time of discharge.

Ligation of Femoral Artery for Aneurism.—*Dr. Tiffany* reported the following case: A spare negro man, æt. 58, had a tumor in the left thigh, causing a certain amount of inconvenience but not preventing his going about. Early last spring it began to grow rapidly and the limb became numb. Dr. T. saw him in June, and found then a very large tumor. Its greatest bulk was at the lower part of Scarpa's triangle. It was elastic, and pulsating. Pressure caused pulsation to cease but the swelling was not much diminished by it. Then pressure with a horse-shoe tourniquet—for which there was just room between the tumor and pelvis—was kept up for two weeks but without benefit, the con-

dition being rather made worse. At the same time light diet and veratrum viride were prescribed. The patient denied syphilis and there was no evidence of it. He stated that during the Mexican war he had received a kick about the middle of that thigh, but there was no other history of injury. As the above treatment had failed the femoral artery was tied in July. This was done in Porta's canal because there was no room for it below. Irrigation with carbolized water and sprinkling with powdered iodoform constituted the after treatment. After the operation the foot got cold. For this the limb was elevated and wrapped in cotton.

The point here selected, ½ inch below Poupart's ligament, is that least frequently selected for ligature. The series of changes of sensibility included first, numbness; then hyperæsthesia, and then return of normal sensation. The sensibility was tested by means of a pin.

Cases of Transient and Permanent Diabetes.—*Dr. McSherry* reported the following case: A vigorous gentleman had a urine of s. g. 1038, acid in reaction, without albumen, and without sugar when tested by Trommer's, Moore's & Fehling's tests. Some sugar had been detected by his previous attendant after he had eaten inordinately of conserves; s. g. diminished somewhat on a meat diet. The high s. g. was explained by the fact that but little urine was passed and was rich in urinary salts.

Dr. M. also spoke of a case of diabetes where the patient had ulcerations about the prepuce and glans and was addicted to masturbation, which vice was probably due to the local irritation as the normal sexual appetite is generally lost in diabetes. The patient was an elderly married man, who appeared to be incapable of, or not to desire, connexion with the wife who shared his bed.

Dr. Miles. We will discover sugar oftener if we look for it.

A Case in which Four Inches of the Shaft of the Femur were lost by Necrosis with Complete Recovery.—Dr. John Ferguson, of Toronto, reports this very interesting case in the July number of *The American Journal of the Medical Sciences.* Upon the removal of the sequestrum, which embraced the whole diameter of the femur, a thin shell of newly-formed bone was felt, and the steps of repair advanced until the femur was completely reformed without shortening. An expectant and tonic plan of treatment was adopted throughout.

Editorial.

Sir James Paget on the National Value of Public Health.—This eminent and eloquent English physician was selected to deliver the address at the Inauguration of the Juries of the International Health Exhibition in London on the 17th ult., and the last numbers of the English Journals, just to hand, contain the address in full. It is marked by statistical and practical facts and deductions and allows but little scope for the author's well-known eloquence. He begins by repeating what all acknowledge in theory but few apply to a corresponding degree in practice that the public should consider much more than they do the utility and the means of maintaining their health. Upon economical grounds, that is with the object of preventing the loss of work by sickness or death, this obligation appeals strongly to nations and communities. Health, in the author's estimation, does not consist alone in idleness, comfort and long life. A nation composed of elements answering to these conditions would quickly stagnate, decline and fall. It is the vigorous long life, the productive existence, the doing the best work of which each individual is capable and the legacy of healthy offspring, that constitute Sir James Paget's healthy nation.

The statistics for estimating the amount of work lost though sickness and death were compiled from the registration books of the mutual benefit societies. These records furnish the number of days when the workmen receive money on account of sickness, and apply to several hundred thousand persons. The calculations from the entire returns show that between the ages of 15 and 65 the average time of sickness among males is a small fraction over nine days each per annum, and among females only a small fraction more, in other words the entire population between the ages specified do annually 20,000,000 weeks' work less than they might do if it were not for sickness. The author gives reasons for accepting this result as applicable generally to the population, and it corresponds with that obtained from the records of the London police. The money estimate of the loss it is impossible to state since it includes services which may be considered as almost beyond valuation as well as those of the humbler and not so well paid classes. Neither can the losses of happiness and welfare consequent on sickness be computed.

The loss of work and money consequent upon sickness and death among those under 15 further augments the above figures, for many of these belong to the industrial classes, others demand the care of those of maturer

age, many are crippled or permanently damaged by disease or injury in childhood.

Speaking of the deaths in children, the author combats the popular sentiment that such things should not be counted as loss owing to the alleged surplus of population.

That these results are not inevitable will appear on examination. Small-pox might be rendered nearly harmless by complete vaccination; typhoid and typhus, scarlet fever, measles, and probably whooping cough and diphtheria might be confined within very narrow limits; the diseases and accidents of artisans are mostly avoidable; so diseases due to bad food, filth, intemperance, and immorality; scrofula, rickets, scurvy and their consequent defects might be greatly diminished. The author estimates that at least one-fourth of all the work and time wasted might have been saved. During the last eight years the death rate has been less than in the previous eight years in the proportion of two deaths to every 1,000 persons living; that is the average number of deaths has been 50,000 less; the greatest diminution being in deaths from fever and in those under 15 years of age. "The annual number of deaths from typhus, typhoid and the unnamed fevers, has been about 11,000 less than it was about twenty years ago. The annual number of deaths of children under 5 years old has been about 22,000 less than it was; and that of children between 5 and 15 has been upwards of 8,000 less." This diminution indicates a still greater diminution in the number of costly and work-wasting illnesses, and a large saving of money. Besides many of those saved become bread-winners and valuable members of society.

The author then proceeds to point out in what way the sources of disease have diminished within the last three decades. There are, for instance, less intemperance, less immorality; there is cheaper and more varied food; more and cheaper clothing; healthier recreations; better houses and drains, water and air and ways of using them; better treatment and nursing of the sick; more care of the poor; and more effectual than all, better sanitation. And we may be sure that all this improvement will continue and increase. We need not fear that charity will become cool, or philanthrophy inactive or that the hatred of evil will become indifference. Science will not cease to search for knowledge or to make it useful when she can. What is needed now is "a larger and more practical recognition of the value and happiness of good national health; a wider study and practice of the methods of promoting it; or at least a more ready and liberal support to those who are striving to promote it." * * * "We want more ambition for renown in health. I should like to see a personal ambition for renown in health as keen as is that for bravery or for beauty or for success in our athletic games and field sports. I wish there were such an ambition for the most perfect national health as there is for national renown in war, or in art, or commerce."

Then the author defines what he thinks such health should be. "The pattern healthy man is one who can do his work vigorously wherever and whatever it may be. The union of strength with a comparative indifference to the external conditions of life and a ready self-adjustment to their changes is a distinctive characteristic of the best health. He should not be deemed perfectly healthy who is made better or worse, more or less fit for work by every change of weather or of food; nor he who in order that he may do his work, is bound to exact rules of living. It is good to observe rules and to many they are absolutely necessary; but it is better to need very few besides those of moderation and cleanliness, and observing these, to be able and willing to live and work hard in the widest variations of food, clothing and all the other sustenances of life. And this which is a sign of the best personal health is essential to the best national health. For in a great nation, distributed among its people, there should be powers suited to the greatest possible variety of work. No form or depth of knowledge should be beyond the attainment of some among them; no art should be beyond its reach; it should be excellent in every form of work. And, that its various powers may have free exercise and influence in the world, it must have, besides, distributed among its people abilities to live healthily wherever work must be or can be done."

We have dwelt rather lengthily upon the facts and suggestions of this address because we feel so keenly the vast importance of the subject and the subordinate position which it has hitherto occupied and still occupies in our social economy. It is strange that it is so hard to get the people and especially the leaders of the people roused to an appreciation of the value of hygiene and preventive medicine, although nothing is more common in the mouths of these same people than the very saying that "an ounce of prevention is worth a pound of cure." Undoubtedly the sentiment in this direction is growing, and yet it cannot be said to be beyond its incipiency with us. Hence the dissemination of the views of so influential and authoritative a speaker as Prof. Paget is in the highest degree desirable, and we cannot better promote the cause for which he pleads than by quoting his views and language. And to the future we may confidently look for the realization of all that he

has suggested or hinted, for in the future shall men behold the greatest triumphs of Preventive Medicine.

THE CHOLERA EPIDEMIC.—The cholera epidemic now raging in Southern France, continues to increase in violence, and to extend its influence over wider sections of that country. The daily reports from Toulon and Marseilles show an increase of mortality and a wide-spread terror and panic among the inhabitants of these cities. Business has practically suspended in both places, and these cities have become almost depopulated by the desertion of their inhabitants who have sought refuge in flight to other localities. A recent telegram states that over one hundred thousand people have fled from Marseilles, leaving the city, practically speaking, almost uninhabited. There is no longer any doubt of the fact that the epidemic is one of genuine Asiatic cholera, which was brought to Toulon from China by the troopship *La Sarthe*. Dr. Koch, of the German Cholera Commission, who has investigated the nature of the disease, has expressed the above opinion, and has predicted that it would extend over Southern Europe. The very name of cholera strikes terror into the minds of many people, and it is not surprising that great uneasiness and alarm are felt in Europe in reference to this visitation. The precautionary measures instituted by municipal and State governments have been prompt and vigorous, and it seems that little is being left undone in this way to check the progress of the disease. We have previously referred to the efforts of our government in this direction. As far as inspection, disinfection and quarantine are effective in preventing the introduction of the disease into this country, we have every assurance that these measures will be rigidly enforced by the State and Treasury Departments. We are able to commend our City Health Department for adopting sanitary measures looking to the prevention of the disease here. Baltimore has large commercial relations with foreign ports, and especially with Mediterranean cities. The adoption of vigorous and effective sanitation should not be considered in the light of an idle and unnecessary duty. It is too late to cry wolf when the wolf is at our door. The true policy is, to place our city in such a condition that no epidemic disease can exert its influence in our midst. The origin of the present outbreak of cholera in Europe is significant enough, and teaches a most important lesson. Toulon is perhaps the most important naval station in France. It has a population of 75,000 souls, and a military garrison and naval service of 35,000 men, making a total population of 110,000. Its port constantly contains a powerful fleet. The city itself is said to be the filthiest in all Europe. Its streets are described as offensive and malodorous. There are no water closets, and the refuse from private dwellings is poured into the streets, where it remains until washed off by the rain. With this sanitary condition the first seed sown into this promising soil was almost sure to grow a hardy crop. The result is what might have been expected. A troopship from China cast anchor in the Toulon harbor. On the 14th of June a man died on board the vessel with cholera. Since then the disease has increased in Toulon, has spread to Marseilles, and now threatens the entire portion of Southern Europe. It is an apt saying, "A little fire kindles a mighty flame." How very applicable is this truth to the germs of cholera and yellow fever. Looking at this outbreak at Toulon from a practical standpoint, it seems impossible to estimate the cost and loss which must result from gross neglect and folly. The sanitary condition of this city has long been a standing nuisance. Once before, in 1865, epidemic cholera destroyed 6,000 lives at Toulon, and again in 1884 a similar history will probably repeat itself.

In defiance of all laws of health, the people of this plague-stricken city have been living for years in an atmosphere of the foulest character.

It has been said that the native inhabitants of Toulon are so inured to this atmosphere that it seldom sickens them, but that it is almost sure death to strangers who reside there any length of time. Certain it is the city enjoys a most unenviable reputation for dirt and filth. It is a standing nuisance which has not only affected the health of Southern France but threatened that of other European nations. It is a nuisance which the Government of France is in duty bound to suppress. Neighboring cities, like neighboring individuals, may become a nuisance to others, and as such involve disastrous consequences.

THE CHOLERA ASIATIC.—Drs. Brouardel and Proust, two members of the French Cholera Commission, have investigated the cholera epidemic at Toulon, and have pronounced it to be genuine Asiatic cholera. At first they were inclined to regard it as sporadic, but a careful investigation of facts obliged them to alter their opinion. Whilst the existence of Asiatic cholera is evident it has been impossible for the Commission to discover the fissure through which the disease has penetrated into Toulon. It was asserted that the transport ship *La Sarthe* had brought the disease from China, but the circumstances now attach no blame to this vessel. In his speech before the Academy of Medicine, Dr. Brouardel closed with the remark that "we evidently stand in the presence of an epidemic of Asiatic cholera, although we cannot discover the loophole by which it gained an entrance."

It is an interesting and at the same time a serious question to know whether the disease will die out in the South of France or spread over larger sections of Europe. Should it arrive at Paris or any of the large capitals of Europe it will almost surely cross the channel and reach London. Once in London our American cities are in imminent danger.

The Government authorities may inspect, fumigate and quarantine *ad libitum*, but some unknown carpet-bagger or tourist, whom these measures cannot stop, may possibly bring the disease here in his satchel. The difficulty of tracing its introduction into Toulon illustrates the fact that the disease may spring into existence without an apparent cause other than wretched sanitary conditions. The best remedies against cholera are absolute cleanliness, ventilation and pure water, hence the importance of keeping our city clean, the air pure, and the water supply fresh, abundant and above suspicion.

Miscellany.

THE USE OF LARGE DOSES OF IPECACUANHA IN SIMPLE AND SLOUGHING DYSENTERY.—Some years back, in my capacity as Government Medical Officer to the Immigration Department, Natal, with a daily average of, say, over twenty patients suffering from dysentery alone, I had every opportunity of testing the efficacy of its treatment by the above-mentioned drug; and I have no hesitation in fully indorsing Dr. Ewart's advocacy of full doses—say from forty to sixty grains—of powdered ipecacuanha; but I would call attention to one most important precaution, of which I see no mention in Dr. Ewart's interesting paper, that is, the denial of all fluids for from two to three hours previous and subsequent to the exhibition of the drug, which in almost all cases totally counteracts any tendency to emesis or even nausea, but is a complete bar to (as far as my experience goes) the comparatively abortive treatment of repeated small doses. Briefly, my rule of treatment was: Denial of all fluids for, say, two hours; then insert an opium suppository; twenty minutes afterward apply a large linseed poultice sprinkled with mustard to the epigastric region, followed in ten minutes by forty grains or upward of powdered ipecacuanha, inclosed in wafer paper (failing wafer paper, cigarette paper suffices) with not more than a dessert-spoonful of milk or thick rice-water to assist deglutition; the recumbent position, quietude, and denial of all fluids for at least two hours subsequently to be strictly enforced. Used in this manner, I can safely assert that ipecacuanha proved in hundreds of cases no less a specific in dysentery than quinine in the equally prevalent disease of malarial fever; but I may add *apropos* of the latter drug, that I found the *coup-sur-coup* treatment—say one to three grains every three hours—gives far better results than the heroic doses of from twenty to thirty grains in vogue in the island of Mauritius.—*Lancet.*

LATE MARRIAGES.—Dr. F. Steinmann, of St. Petersburg, has recently published the results of his researches into the question of how far childbirth and lying-in are unfavorably affected by the primipara being old when she first becomes a mother. The estimate of the time when a primipara is called old varies between twenty-five (Fasbender) and thirty-five years (Mangiagalli), but Dr. Steinmann accepts that which most authorities have adopted, viz., thirty years. From twelve years' statistics of the St. Petersburg Maternity Hospital, during which time there were 28,279 deliveries, it appears that there were in that period 645 old primiparæ. Of this number a fraction over 69 per cent. were thirty to thirty-four, 26.2 per cent. thirty-five to thirty-nine, and 4.2 per cent. forty years and over; one of these was fifty-two years old. In 1875, when the general mortality was three and a half per cent., that of old pirmiparæ was nearly fourteen per cent.; and again in 1881, when the general mortality was only one-half per cent., that of the old primiparæ was eight per cent. A decidedly greater fœtal mortality when primiparity is late is also shown by the statistics collected by Dr. Steinmann, and, although the subject demands more attention from the profession than it has heretofore received, the facts adduced by him furnish strong reasons for objecting to late marriages.—*Lancet.*

TREATMENT OF CORYZA.—Surgeon-Major G. E. Dobson writes in the *Lancet* of May 31,

1884, describing a plan of treatment for coryza, which is certainly simple enough, and which he claims is very effective. About a drachm of camphor, coarsely powdered, or shredded with a knife, is placed in a small pitcher, which is then half filled with boiling water. The patient, having made a paper cone large enough to surround his face by its wide extremity and the mouth of the jug by its narrow end, proceeds to respire freely, at each inhalation drawing the steam into his nostrils, and at each exhalation forcing it up against the outer surface of his nose and adjoining parts of the face. A two-fold action is produced; the camphorated steam acts internally in a a specific manner upon the whole extent of the mucous surfaces, and externally produces profuse diaphoresis of the skin covering the nose and face, thus acting as a derivative from the inflamed Schneiderian membrane. The pitcher should be wrapped in a woollen cloth to retain the heat in the water, or, better still, a tin vessel, under which a spirit-lamp is burning, may be used. The respirations should be continued for from ten to twenty minutes, and should be repeated three or four times in as many hours. The writer asserts that great relief is always felt even after the first application, and that three or four usually effect a cure.—*The Med. Record.*

A New Medical College in the District of Columbia has been organized with the following Faculty: Dr. John T. Winter, Professor of Materia Medica; Dr. Howard H. Barker, Professor of Obstetrics and Dean of the Faculty; Dr. T. E. McArdle, Professor of Surgery; Dr. Samuel F. Adams, Professor of Theory and Practice of Medicine; Dr. G. W. Cook, Professor of Physiology; Dr. G. Wm. West, Professor of Anatomy.

The new college is to be called the Medical Department of the "National University."

Gastrotomy.—A remarkable operation of this kind was performed by Mr. Knowsley Thornton on Tuesday, May 6th, at the Samaritan Hospital. A girl, aged eighteen, who was a patient of Mr. H. P. Symonds, of Oxford, had indulged for some years in the habit —not unknown in the records of clinical medicine—of eating the combings of her hair, and swallowing cotton and other like materials. A large mass gradually collected, which was moulded into the shape of the stomach, and measured nine and a half inches in length, and five inches in breadth at the cardiac end. The stomach was opened on its anterior surface by an incision five inches long.

Very little hemorrhage ensued, and the mass was extracted by means of a vulsellum. During this process, precautions were taken so that neither the wound nor the peritoneum was fouled by the contents of the stomach. The wound was closed by five silk sutures deep and superficial, interrupted and continuous. A case of a similar kind, which terminated in the recovery of the patient, is recorded by Schönborn in Langenbeck's *Archiv*, vol. xxix, 1883, page 619.

Mr. Thornton's patient was doing well at noon on Thursday, May 8th.—*Brit. Med. Journ.*, May 10, 1884.

Hydrobromate of Conia in Epilepsy.—Mr. R. N. Wolfenfender reports seven cases of epilepsy treated with hydrobromate of conia. The conclusions he draws from the treatment of these seven cases are—that the drug is undoubtedly serviceable in certain cases, and those in which it fails are cases of convulsions depending possibly on some gross lesion of the brain. The slighter cases were distinctly benefitted by it.

The drawbacks to the use of the drug appear in the complaints of headache, and, when in large doses, of giddiness lasting for an hour after taking it, with sometimes a suffusion and congestion of the conjunctivæ. In the doses in which he has given it, there has not been noticed any cardiac or respiratory alteration. It is said that the dose of this drug must not exceed four and a half grains in twenty-four hours, commencing with one and half grain. In his experienee, a child of eight bore one and seven-eights grain with only headache; a child of seven took one and a half grain per diem. without any complaint; two and a half grains per diem were taken by a female without complaint; one adult man took three and a quarter grains with impunity. In one case two grains per diem caused sickness, headache, and "weakness" in a young man of eighteen. One and a half grains appears to be followed frequently by headache. He thinks the drug deserves further trial, and he hopes to try it more extensively in future. Combined with the constant application of the continuous current, he has successfully treated with it a case of hemichorea. In this case, however, it would be rash to speculate whether the drug, the galvanism, or time was the most effectual in the cure.—*Practitioner*, June, 1884.

Treatment of Dyspepsia in Children.—The scheme (*Archivio di Patologie Infantile*) of directions which the author lays down for the treatment of children who are suffering with dyspepsia, applies to such as have passed the fifth or sixth year of their life, but especially to those who are approaching puberty. The following are

some of the recommendations which he makes:

1. Cold or tepid baths when there is no predisposition to bronchitis. The temperature of the water should be lowered in accordance with the tolerance of the child. Alcohol may sometimes be added with advantage when cold water is used.

2. A mixture of gentian, rhubarb, and cascarilla, in the form of powder, tincture, or syrup, may be given with advantage before each meal, and to this should be added an acceptable form of nux vomica in cases in which children are weak and debilitated.

3. Some acceptable form of mineral water should be taken with the meals. The author recommends the waters of Vals and of Alet, taken alternately for eight days.

4. Some suitable wine or elixir containing pepsin should be given after eating, in order to facilitate digestion.

5. Fresh bread, feculent foods in excess, delicacies, and fats should be rigidly excluded from the diet list. As to the washing out of the stomach, which has proved so useful a measure in the dyspepsia of adults, the author admits that he has had no experience in the matter with children. If the foregoing recommendations be carried out, and do not effect a cure, the patient must have change of air and scenery. (The last mentioned recommendation will vary, of course, with the country and season which are concerned in a given case.)—*Archives of Pediatrics.*

"Woman" and "Ovary-Man."—Prof. Goodell, in a clinical lecture on removal of the ovaries (*Philadelphia Medical Times*) observes: "As I have often said to you, the word 'woman,' or 'womb-man' is a misnomer. She is a woman because she has ovaries, not because she has a womb. A woman who is born without ovaries remains a child and undergoes no development, while, on the other hand, many a woman is born without a womb, and yet has all the development and attributes of womanhood. The scientific label of woman should be "ovary-man." Of oophorectomy Dr. Goodell says, "The operation is still young, and I think, has been abused, and it is in danger of being abused. It requires the utmost caution on the part of the surgeon to decide whether or not to remove the ovaries. The extirpation of these organs does not unsex the woman in regard to her appearance, or to her place in society—it simply prevents her from having children. There are several cases reported in which both ovaries have been removed by careful surgeons, and yet the woman has, months or years afterwards, given birth to a chid. This has most likely been due to the presence of a third ovary with its tube. I have never met with such a case, but there are numerous instances on record in which a third ovary or ovarian structure has been found in the broad ligaments, apart from the two ovaries."

Chill as an Etiological Factor in Pneumonia.—In an address delivered before the Birmingham Branch of the British Medical Association (*Birmingham Medical Review*, June, 1884.), Dr. J. Burney Yeo expressed the belief that chill has a causal relation of some sort to many cases of pneumonia, but thought that its influence was often overrated. It is notorious, he says, that pneumonia often occurs during the prevalence of winds, especially the winds of spring; and not with winds from any particular quarter, for it is found to prevail with southwest winds as frequently as with east or northeast winds. Now, in this connection we have rather overlooked the fact that winds are carriers of dust as well as conveyors of cold (or rather abstractors of heat); and that while, on the one hand, they carry away heat from the surface of the body, on the other hand they gather up dust of all kinds, and blow all manner of micro-organisms into our air-passages. It has been noticed again and again that all depressing agencies may predispose to pneumonia, such as exhaustion from physical fatigue and depressing emotions, and it may be that exposure to a cold wind acts both as a predisposing cause, by the depression of the normal resisting power it produces by rapid abstraction of heat, and also as an exciting cause, by means of the micro-organisms it blows into our air-passages.—*The Medical Record.*

Good shellac varnish is made as follows: Take of very pale shellac five pounds, mastic one ounce, and alcohol five or six pints, and dissolve in the cold to prevent the evaporation of the alcohol, stirring the mixture meanwhile. This is a good varnish for furniture, and it is much employed in France by cabinet makers.—*Amer. Druggist.*

Critical Lesions of the Brain.—Dr. M. Allen Starr, of New York, in the July number of *The American Journal of the Medical Sciences*, has collected the American cases of lesions of the central region of the brain, and carefully studied their localized symptoms. He finds that disturbance of general sensation—including the senses of touch, pressure, pain and temperature, together with the sense of the location of a limb—may occur either in the form of subjective perceptions of such sensations without objective cause, or in the form of impairment of these sensations. In either case it indicates a disease in the central convolutions, and possibly in the adjacent portion of the parietal lobules.

The power of voluntary motion of the muscles of the opposite side of the body is located in the two central convolutions which border the fissure of Rolando. Motions of the face and tongue originate in the lower third of this region; motions of the arm, in the middle third; motions of the leg, in the upper third.

Spasms in, or paralysis of, a single group of muscles may indicate disease of its motor area. Extensive spasms or paralysis may indicate a large area of disease in this region, but if more marked in a single group of muscles than in others it may indicate a small focus of disease in the motor area of that group affecting other motor areas indirectly and coincidently. Paralysis following spasm in one group of muscles is a characteristic symptom of disease in the central region.

Disturbance of the power of speech indicates disease in the convolutions about the fissure of Sylvius on the left side in right-handed persons, and on the right side in left-handed persons. If the patient can understand a question and can recall the words needed for a reply, but is unable to initiate the necessary motions involved in speaking, the disease is probably in the third frontal convolution and in the adjacent portion of the anterior central convolution. If the patient cannot recognize spoken language, but can repeat words after another, or can use exclamations on being irritated, the disease is probably in the first temporary convolution. If the patient can understand and can talk, but replaces a word desired by one that is unexpected, the disease is probably situated deep within the Sylvian fissure, or in the white substance of the brain, and involves the association fibres which join the convulsions just named.

On the Pathology of Paget's Disease of the Nipple.—Dr. Louis A. Duhring and Henry Wile, of the University of Pennsylvania, give in the July number of *The American Journal of the Med. Sciences* an instructive study of the pathology of Paget's disease, which has already evoked much discussion. The importance of the subject is apparent, and it ultimately resolves itself into the question of distinguishing between ordinary eczema of the nipple and another similar cutaneous pathological process which on good grounds is believed to lead to the formation of malignant disease of the mammary gland.

The affection is regarded by Drs. Duhring and Wile as an abnormal proliferation and degeneration of the rete, with secondary destruction of the papillæ of the corium, and subsequent development of scirrhus cancer of the atrophying variety. The cancerous change originates in the epithelium of the smaller ducts, and advances from below upwards and outwards as far as the skin is concerned; later it attacks the gland structure; and the retraction of the nipple is an early sign of carcinomatous change.

Bright's Disease of Malarial Origin.—Dr. I. E. Atkinson, of the University of Maryland, believing that this subject has not attracted the attention it deserves, has been led to study with reference to it all cases of malarial fever coming under his observation during the late summer and early fall of the past two years, at Bayview Asylum, and the result he gives in an able and elaborate paper which appears in the July number of *The American Journal of the Medical Sciences.* The conclusions which he reaches are as follows:

1. Transitory albuminuria is not uncommon in the course of malarial fevers, and is due to the intense visceral congestions characteristic of these affections. It only may endure throughout the height of the congestion, recurring with each return of this, or it may persist in the intervals, in which event a higher grade of congestion is attained, more nearly approaching a condition of acute inflammation.

2. In a proportion of cases, varying with locality and type of prevailing epidemic, or individual conditions, inflammation of the kidney occurs, accompanied by dropsy and the usual symptoms of nephritis.

3. The usual form of malarial nephritis is the tubal and diffuse variety. In this the inflammation seems to be most intense in the vicinity of the glomeruli.

4. Contracted kidney may occur as an advanced stage of malarial nephritis either from long-continued or frequently repeated attacks of malarial fever, or from fibrotic changes such as may ultimately occur in ordinary tubal or diffuse nephritis. It is altogether improbable that this form of malarial renal disease ever occurs primarily as purely interstitial nephritis.

5. These changes may be induced by any form of malarial fever, though they more commonly follow chronic intermittent fever.

6. The tendency of malarial inflammation of the kidney is toward recovery. But from the persistence of the impaludism or the intensity of the inflammation, structural changes may be produced that are characteristic of chronic Bright's disease, when the gravity of the affection will be as that from chronic Bright's disease from whatever cause.

7. Treatment should be directed primarily against the malarial intoxication, more especially in recent cases. A correction of this will often be followed by a complete, though often gradual, subsidence of the nephritis. Even in more chronic cases, the malarial factor in the process should definitely be destroyed if possible, after which the disease should be treated as ordinary Bright's disease.

ACUTE YELLOW ATROPHY, RED ATROPHY AND HYPERTROPHIC CIRRHOSIS OF THE LIVER.—In a study of a number of cases of these diseases Dr. J. H. Musser, of Philadelphia, in the July number of *The American Journal of the Medical Sciences*, seeks to determine whether the degenerative changes are primary, or secondary to an inflammatory process.

A CASE OF LEFT INGUINAL COLOTOMY FOR IMPERFORATE RECTUM—Dr. W. H. Haynes, of N. Y., records in the July number of *The American Journal of the Medical Sciences* an interesting case of inguinal colotomy. One procedure in the treatment we do not find discussed elsewhere in detail, namely, that of opening up a passage at the natural site for the canal, either simultaneously or subsequent to the operation of opening the gut. When the two operations are to be performed at the same time, the first or inguinal opening would be in the nature of an exploratory operation, and should be made small so as to admit of immediate closure, and return to the peritoneal cavity after a passage had been secured at the natural site. If this latter be not secured, then the opening could be enlarged and made to serve the purpose of an artificial anus in the abdominal wall. The advisability of this procedure, however is at present in such a doubtful state, that only the experience of a number of operators can determine it. Of the few cases so far undertaken in this manner that Dr. Haynes can find recorded, his own is the only one that survived the second operation.

Dr. Haynes's single experience, though successful, does not lead him to advise this procedure, since the object of it will, during the early years of its life, be dependent on exceedingly diligent and constant attentions of others whose affections and services, though the closest, are not to be depended on, as was demonstrated in his case. If the second operation be subsequent to the first, the patient will have a double annoyance, or be under the necessity of having a third operation performed for the closure of the opening first made, which is not unattended by danger to life or of doubts as to the result; and perhaps be under the necessity of having to have it reopened, owing to neglect in the proper after-treatment of the new canal in the natural site. Whereas if one is satisfied with having saved life in a manner which numerous cases testify is not unenjoyable or full of discomfort, as used to be maintained, all dangerous risks of subsequent operations are avoided, there will be no more dependence on others, services than is natural, and many sources of distress that natural flesh is heir to will be obviated.

OCCURRENCE OF A RARE HUMAN TAPEWORM (TÆNIA FLAVOPUNCTATA).—Dr. Jos. Leidy, of the University of Pennsylvania, describes in *The American Journal of Medical Sciences* for July, 1884, the tænia

flavopunctata, a rare human tapeworm, which has now been observed for a second time, both cases occurring in this country and infesting children. It is not improbable that the species is more common than the observations would warrant us in believing, for from the smallness of the worm and the generally prevailing ignorance of the distinctions in the more common species, it might readily be passed for immature portions of these.

THE *London Medical Times and Gazette* says that the epitaph on Dr Thomas Crossfield, in Hendon churchyard, Middlesex (written by himself), is as follows:—

"Beneath this stone Tom Crossfield lies,
Who cares not now who laughs or cries.
He laugh'd when sober, and when mellow
Was a harum-scarum, heedless fellow.
He gave to none design'd offence,
So 'Honi soit qui mal y pense.'"

SIR WILLIAM JENNER, of London, commenced life as an apothecary in a small back street, and for a long time the battle of life fell hardly on him. He worked with rare energy and after obtaining the M.D. degree and being elected a fellow of the College of Physicians, was appointed Physician to University College Hospital. He later became physician to the queen and the prince of Wales.—*Amer. Druggist.*

TRAUMATIC CEPHALHYDROCELE.—Compound fracture of the skull, especially of its base, with resulting escape of the cerebro-spinal fluid is, as every one knows, a common accident; but the occurrence of subfascial accumulation of this fluid, in connection with and consequent upon simple fracture of the vault, is of such rarity that two cases recorded by Dr. P. S. Conner, of Cincinnati, in the July number of *The American Journal of Med. Sciences*, will be studied with interest. So far as he has been able to ascertain, there have been reported but 19 cases of subfascial accumulation of the cerebro-spinal fluid after simple vault fracture, and three others where there had been originally a communicating wound of the scalp which had closed.

As far as has yet been observed, excluding those cases which were primarily compound, this traumatic cephalhydrocele is met with only in young subjects. Explanation of this fact is probably to be found, at least in part, in the great elasticity of the skull in infancy and early childhood, permitting of marked depression and fissuring of the vault without that associated wound of the scalp which would be likely to occur were ossification complete; and in part also, in the much closer connection of the meninges and skull in children than in youth and adults.

The decided gravity of these cases is apparent from the statistics. Of the 18 cases of simple fracture in which the result is known, 9 (50 per cent.) died—8 of meningo-encephalitis and 1 of erysipelas and meningitis; and of the 3 in which the fracture was originally compound, 1 died (33⅓ per cent.) of cerebral abscess. Even the supposed recoveries may be regarded with some suspicion, because of too early report.

Dr. Conner draws the following general conclusions:

1. Simple fracture of the vault of the skull may give rise to a collection under the scalp of the cerebro-spinal fluid; coming, it may be, only from an opened ventricular cavity.

2. Such traumatic cephalhydrocele may be developed quickly, or only after the lapse of a number of days or even weeks.

3. The condition is one that has thus far been noticed only in young subjects.

4. The accident is quite likely to prove fatal from lepto-meningitis or meningo-encephalitis.

5. Operative interference should be restricted to the removal by aspiration of a limited amount of fluid; and such aspiration should be made only when severe pressure symptoms have manifested themselves.

6. A similar fluid accumulation may occur after closure of the external wound of a compound vault-fracture or of a trephining.

IS MORPHINE DANGEROUS IN CARDIAC DISEASE.—From time to time we are shocked to hear of the sudden death of a person, soon or immediately after the hypodermic use of morphine, given probably for the relief of severe pain. Subsequent autopsical examinations have then repeatedly shown the existence of grave organic lesions of some important organ or system, which was either overlooked by the physician in charge, or having been clearly recognized, was not held to contra-indicate the hypodermic use of mor-

phine. Accidents of this kind would seem to be particularly frequent where renal disease is present. In chronic heart disease a disastrous result appears to be likewise a quite possible consequence of employing so potent and rapidly acting drug.

In a recent number of the *Centralblatt fuer Nervenheilkunde*, Dr. Runeberg reports a case in which a calamity of this kind occurred. The patient was a strong man, forty years of age, to whom, during an attack of angima pectoris, an injection of one-fifth grain of morphia was given. About two minutes later the man gave a sudden start, opened his eyes, and died. The autopsy revealed extensive sclerosis of the coronary arteries, with softening of a portion of the cardiac muscle. Although such a condition rendered the patient liable to sudden death at any moment, yet Dr. Runeberg wisely suggests that the lethal issue was at least hastened by the morphine administered. Dr. Israel has recorded a somewhat similar experience, where death followed the injection of only one-eighth of a grain.

In this case the patient suffered from cardiac insufficiency, associated with renal disease. These and numerous other instances of the same kind, recorded and unrecorded, are so striking as to render the theory of a coincidence, to say the least, improbable. And it therefore behooves us to exercise the utmost caution in the administration of morphine to patients suffering from grave cardiac lesions. And this particularly as morphine, in proper cases of heart disease, is an altogether invaluable remedy, that may be just as potent for good as it seems to be capable of effecting evil. The subject is well worthy further careful study, in order that we may learn with more accuracy just what constitutes the contra-indications for its employment.—*The Medical Record.*

A New Apparatus for Drawing Forward the Cheek in Hare-lip Operation.—Dr. William S. Cheesman, of Auburn, N. Y., describes in *The American Journal of the Medical Sciences* for July, 1884, an ingenious apparatus which he devised to relieve the lip of compression after hare-lip operation, at the same time that the cheeks are held well forward.

Pain on Percussion in Hepatic Cancer.—Dr. Geo. Drury states (*N. Y. Medical Journal*), that in cases of hepatic cancer, where the liver is not enlarged and is concealed under the costal arch, the persistent tenderness of the liver induced by percussion of the hepatic region, where there is absence of any cause of an existing cachexia becomes a highly diagnostic sign.

Medical Items.

Dr. Rudolf Boehm, director of the Pharmacological Institute of Marburg, has been called to Leipsic as professor of pharmacology and hygiene.=Dr. Le Fort, Professor of Operative Surgery at Paris, has been transferred to the Chair of Clinical Surgery, succeeding M. Gosselin.=Dr. P. F. Ellis, in the Texas *Courier Record*, recommends a pinch of snuff as a sure cure for hiccough.=Miss Lulu Hurst, the Georgia wonder, has been exhibiting her alleged wonderful powers in New York city. The *Record* says, "she has failed to satisfy the intelligent and critical among her audiences that she possessed any occult force whatever." Miss Hurst gave exhibitions in this city, and the general opinion of those who witnessed her experiments here is, that the only force she exerts is "muscular force." She is strong and muscular, and by ingenious and rapid motions forces her antagonist to perform the gyrations she is apparently making. In the meantime Miss H. is paying off large mortgages on her father's farm, and exciting considerable public interest. As a side show performance her exhibitions are worth the entrance fee.=Two million francs have been bequeathed by the late Baroness Alquier for the erection of a new hospital in Paris.=The London Hospital has just received $50,000 from Baroness Rothschild.=Dr. Squibb in an article on Constipation in his last *Ephemeris* says that most constipations are due to insufficient water in the fecal mass. He advises those suffering from constipation to drink more water.=Sir James Paget says that typhoid fever destroys the lives of 4,000 working people a year in England and Wales, and that from this one preventable disease there is an annual loss of 230,000 week's work from illness.=The London *Lancet* is much exercised over the possibility of persons being buried alive, and suggests that burial should not be permitted till some signs of decomposition have appeared.=A New England Cremation Society has been organized in Boston. The fee for membership is twelve dollars annually, which confers the right to the member to have his body cremated without further expense.=The hypodermic use of pilocarpine is recommended for obstinate hiccough.=*The Weekly Medical Review* of St. Louis will in the near future

add an obstetrical department, which will be edited by Dr. Geo. J. Engelman. The journal will then be named "The Weekly Medical Review and Journal of Obstetrics and Diseases of Women."=*The New Orleans Medical and Surgical Journal* has been reorganized in its editorial department. Three of the old corps retire, and the remaining two unite with others to form the New Orleans Medical Publishing Association.=M. Pasteur has received a gold medal from the Central Society for the Improvement of the Canine Race, for his researches in hydrophobia.=It is proposed, after the International Congress is over, on August 17th, to organize an excursion to Bergen and Norway where leprosy is prevalent. The excursion will last about fifteen days, and will be directed by Dr. Armauer Hansen.=A joint resolution to print additional copies of the "Medical and Surgical History of the War" and the "Index Catalogue," which passed both houses of Congress, has been approved by the President.=The resolution provides for the sale of the volumes to the public at cost, with ten per cent. added.

CHANGES IN THE STATIONS AND DUTIES OF THE OFFICERS SERVING IN THE MEDICAL DEPARTMENT U. S. ARMY, from July 4th, 1884, to July 14th, 1884:

Clements, B. A., Major and Surgeon, also directed to relieve Surgeon J. P. Wright of his duties as Acting Medical Director, Department of the Missouri.

PROMOTIONS.

To be Assistant Surgeons, with the rank of Captain, after five years' service, in accordance with the act of Congress of June 23, 1874:

Assistant Surgeon John J. Kane, June 3, 1884.
" " John M. Banister, June 3 1884
" " Aaron H. Appel, June 3, 1884.
" " Charles Richard, June 3, 1884.
" " W. Fitzhugh Carter, June 3, 1884.

CHANGES IN THE MEDICAL CORPS OF THE U. S. NAVY during the week ending, July 12, 1884:

Past Assistant Surgeon G. P. Lumsden, ordered to U. S. S. "Wyandotte."

Past Assistant Surgeon R. C. Persons, detatched from "Wyandotte" and placed on waiting orders.

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF MEDICAL OFFICERS OF THE U. S. MARINE HOSPITAL SERVICE, from April 1st to June 30th, 1884:

Bailhache, P. H., Surgeon, detailed as Chairman of Board to examine candidates for appointment into the Revenue Marine Service, May 17th, 1884.

Vansant, John, Surgeon, to proceed to Empire City, Oregon, as Inspector, April 2, 1884.

Hutton, W. H. H., Surgeon, granted leave of absence for twenty-five days. May 14, and June 9, 1884.

Miller, T. W., Surgeon, granted leave of absence to attend the meeting of the American Medica Association, May 1 1884. To proceed to Pittsburg, Pa., Ashtabula, Ohio, Buffalo, N. Y., and Detroit, Michigan, as Inspector. May 10, 1884.

Wyman, Walter, Surgeon, to proceed to Crisfield, Md., as Inspector April 11, 1884. Detailed as President of Board for physical examination of candidates for appointment as Cadets in the Revenue Marine Service. May 20, 1884. To examine Cadet-graduates Revenue Marine Service as to physical qualifications. May 31, 1884. Detailed as member of Commission to inspect United States buildings at quarantine station, on the Delaware River. June 16, 1884.

Wyman, Walter, Surgeon, detailed to represent the Marine Hospital Service as delegate to the American Medical Association. April 17, 1884.

Austin, H. W., Surgeon, granted leave of absence to attend the meeting of the American Medical Association. May 2, 1884.

Gassaway, J. M., Surgeon, when relieved by P. A. Surgeon Mead, to proceed to Portland, Maine, and assume charge of the service. April 16, 1884. Granted leave of absence for thirty days. May 28, 1884.

Stoner, G. W., Passed Assistant Surgeon, when relieved by Surgeon Gassaway, to proceed to Cairo, Ill., and assume charge of the service. April 16, 1884. When relieved by Surgeon Gassaway to report in person to the Surgeon-General. June 20, 1884.

Irwin, Fairfax, Passed Assistant Surgeon, granted leave of absence for twenty-one days. June 19, 1884.

Mead, F. W., Passed Assistant Surgeon, when relieved by Assistant Surgeon Devan, to proceed to Philadelphia, Pa., and assume charge of the service. April 16, 1884. Detailed as Recorder of Board for Physical Examination of candidates for appointment as Cadets in the Revenue Marine Service. May 20, 1884.

Carter, H. R., Passed Assistant Surgeon, to inspect unserviceable property at the San Francisco Hospital. May 24, 1884.

Wheeler, W. A., Passed Assistant Surgeon, to inspect unserviceable property at the Chicago Hospital. May 24, 1884.

Benson, J. A., Passed Assistant Surgeon, granted leave of absence for thirty days. April 14, 1884. When relieved by Passed Assistant Surgeon Stoner, to report to him for temporary duty. May 19, 1884.

Banks, C. E., Passed Assistant Surgeon, detailed as member of Board to examine physically candidates for appointment into the Revenue Marine Service. May 17, 1884. To inspect unserviceable property at Baltimore, Md., New York, N. Y., and Boston, Mass. May 26 and June 2, 1884.

Bennett, P. H., Passed Assistant Surgeon, granted leave of absence for twenty days. June 28, 1884.

Devan, S. C., Assistant Surgeon, to proceed to Port Townsend, W. T., relieve Past Assistant Surgeon Mead, and assume charge of the service. April 14, 1884.

Urquhart, F. M., Assistant Surgeon, granted leave of absence for thirty days. May 22, 1884.

Yemans, H. W., Assistant Surgeon, to report to Captain M. A. Healey for duty as Medical Officer during cruise of Revenue cutter "Corwin." April 16, 1884.

Glennan, A. H., Assistant Surgeon, to proceed to Mobile, Alabama, for temporary duty during sickness of Past Assistant Surgeon Goldsborough. June 17, 1884.

APPOINTMENT.

Brooks, Stephen D., M.D., of Massachusetts, having passed the examination required by the regulations was appointed an Assistant Surgeon by the Secretary of the Treasury. May 15, 1884.

(Dr. Brooks had previously served as an Acting Assistant Surgeon, from March, 1883, to May, 1884.)

Original Papers.

TWO CASES OF INTESTINAL OBSTRUCTION: ONE FROM IMPACTED FÆCES; THE OTHER FROM STRICTURE DUE TO CANCER, WITH SPECIMEN.*

BY DR. GEORGE W. VOGLER.

Modern writers usually enumerate the causes of intestinal obstruction as follows:

1. Congenital malformation.
2. Internal strangulation.
3. Intussusception or Invagination.
4. Constriction.
5. Compression.
6. Impaction of foreign bodies or intestinal concretions.
7. Impaction of fecal masses.

Upon looking through the statistics of intestinal obstructive diseases, certain striking facts are noticeable. It is difficult to estimate the comparative frequency of intestinal obstruction. It is by no means a very common affection, always dangerous, and in a very large proportion of cases resulting fatally. Statistics show that most forms of obstruction of the bowels are more often met with in the male than in the female subject, the exceptions being obstruction by gallstone or fecal matter; constrictions by peritoneal or other adhesions, and compression of the intestine by tumors or displaced viscera.

As regards age and the portion of the intestine involved:

Obstruction by gallstones always occurs late in life, and involves the jejunum and ileum. Intussusception may occur at all ages, especially during childhood, and is confined chiefly to the large intestine.

Stricture is a disease of adult life (of course always omitting congenital malformation), involving the large intestine; three fourths of the total number being below the middle of the transverse colon.

With these few introductory remarks, I will proceed at once to the reading of the notes of a case of intestinal obstruction by constriction due to cancer:

Mrs. Mary Müller, German, aged 58 years, was admitted April 18th, into the ward of my friend and colleague, Dr. Adam Trau, at the German Hospital.

For some six months previous to her admission she had been under almost constant treatment by physicians. She states that constipation was her chief symptom, for which all kinds of purgative remedies and various procedures were used, but with little avail.

She was anæmic, considerably emaciated, and very weak. Chief symptoms were obstinate constipation, great tympanites, severe pain, and almost incessant vomiting. Temperature and pulse not much disturbed.

A careful physical exploration of the abdomen, vagina, and rectum, elicited no sign of a tumor.

A long œsophageal tube was readily passed into the bowel, even to the length of twenty-seven (27) inches, according to the statement of the medical resident.

In brief, it seemed that the case was one of a paresis of intestinal movement, due to some defect either in the intrinsic ganglia and nerves of the muscular intestinal coat, or through imperfection of the muscular tissue by degeneration; or both these causes combined.

The treatment consisted in the use of purgative remedies, large watery and stimulating enemata, with comparatively no results; turpentine stupes, followed by hot flaxseed poultices gave some ease. The introduction of a long œsophageal tube into the bowel and massage of the abdomen afforded much relief. So great was the tympanites shortly before her death that respiration was materially interfered with, necessitating the introduction of a small aspirating needle to afford temporary relief.

She was fed by pancreatized milk per bowel, and Cibil's beef extract and stimulants by mouth.

Death occurred April 29th, by asthenia.

Owing to the interest taken in the case during life, the following gentlemen were present at the post-mortem examination, by invitation of Dr. Trau: Drs. Formad, Dercum, F. H. Gross, Barton, Jones, Vogler, and the residents, Weed, Stabler and Rehfuss.

Body emaciated and abdomen greatly distended, the intestinal convolutions plainly mapped out upon the abdominal wall. The distension of the intestines, particularly the colon, was simply enormous. Some adhesions noted. At the lower part of the descending colon, a constriction was seen. This part of the intestine was carefully removed, and when subjected to the hydrostatic test, was found to be impervious to a downward current, but readily permitted the passage of an upward current. On opening the specimen along the line of the mesenteric attachment, a valve-like scir-

*Read before the Philadelphia County Medical Society, June 18, 1884.

rhous tumor was exposed, which readily accounted for the phenomena observed in life, viz.:

1. Ready introduction of fluids into the bowel by a fountain syringe, also a rectal tube.

2. Failure of the fluid to be voided after withdrawal of the tube.

3. An almost total absence of the natural passages from the bowel.

The specimen which I now pass around is well worth a careful inspection, the lesion consisting of two valve-like scirrhous masses completely encircling the bowel, to which it is alone confined.

The other case of intestinal obstruction was due to impacted fæces:

Mrs. F., aged 64, private patient, afflicted for many years with habitual constipation, frequently going many days without an evacuation; commenced complaining some three weeks previous to my visit, with severe pain in the left lumbar and umbilical regions, and an impossibility to relieve the bowels by powerful purgatives.

No other symptom of note troubled her up to within a few days, but now she was suffering with some fever, pain, nausea, exhaustion, and was passing some bloody mucus from the bowels.

Careful examination of abdomen and vagina, revealed a large, hard and irregular-shaped body or tumor, situated in the left lumbar region, painful to the touch, slightly movable, and entirely free from womb and its appendages.

The diagnosis was determined by the history, the absence of acute symptoms, physical examination, and by the process of exclusion of other causes of obstruction. By this time her life was in great danger.

The treatment consisted chiefly in the frequent use of large enemata of soap water, castor oil, turpentine and laudanum.

Small doses of calomel and ipecac were given by mouth. After two or three days, some small and hard pieces of fecal matter were passed for the first time, and a careful examination indicated the mass to have broken in two, one occupying the old position; the other, the sigmoid flexure.

She was vomiting at this time.

The quantity of fecal matter that came away during the following week was enormous. At one sitting, as many as twenty-seven large pieces of hard, dry fecal matter came away, and I give this merely as an illustration of the quantity passed at one time. Frequently it became necessary to unload the rectum by digging out the masses.

At times bloody mucus came away.

Of course, pain was very great during these operations, and opium had to be resorted to.

Gradually the swellings began to grow less, and finanally disappeared. The patient was able to trace their slow movements along the intestines by the intense pain.

Only after weeks of careful treatment did this patient fully recover her health, and, strange to say, with a radical cure of her habitual and long standing constipation.

REPORT OF A CASE OF OVARIOTOMY, WHICH TERMINATED FATALLY.

BY RANDOLPH WINSLOW, A. M., M. D.,
Demonstrator of Anatomy in the University of Maryland, Professor of Surgery in the Woman's Medical College of Baltimore.

Whilst surgeons are usually anxious to place their successful cases upon record, it is not so common for them to give a detailed account of those which terminate unfortunately, and as much instruction may often be obtained from a study of the accidents and complications which may occur, I am led to publish the following fatal case:

Miss K. D., aged 34, appeared on March 26, 1884, with an abdominal tumor and desired a diagnosis. Her health is fairly good. She has been employed in a store until recently, but was obliged to relinquish her position on account of pain in the left side of the abdomen. She received some injury to the right side two or three years ago, but did not notice any swelling until June, 1883. She has never been pregnant, has never missed the catamenia. There is no enlargement of breasts or any areola around the nipples. All her functions are performed normally. Being etherized and placed upon the table, a careful examination revealed a large tumor filling up the right side of the abdomen, and extending almost as high as the liver. This tumor gave a decided sensation of fluctuation, but not so distinct as is usually the case in ascites. The growth appears to be both cystic and solid, as a hard circumscribed area is felt in the right iliac fossa, and another somewhat larger than the spleen in the neighborhood of the liver. The tumor does not extend beyond the median line Over the swelling the percussion sound is dull, at its inferior border resonant. A marked resonant line can be made out between the liver and the tumor. The growth seems movable and its movements are quite independent of those of the uterus. There is also a small tumor felt above the pubis, which proved to be the uterus. Left ovary could be felt through the abdominal walls. Upon introducing the finger into the vagina the cervix uteri was found high up and in close appo-

sition to the pubes. A rounded mass posteriorly at first gave the impression that it was the retroflexed fundus, but upon pressing upon the tumor fluctuation could be made out, and it proved to be a portion of the cyst which had descended into the pelvis and had crowded the uterus forwards. It was almost impossible to expose the cervix with Nott's speculum, but with Sims' instrument it could be brought into view. A probe enters normally about three inches, and imparts motions to the uterus, but not to the tumor. It was not thought necessary to aspirate the cyst in order to examine its contents, as it seemed clear that the case was one of compound ovarian tumor.

Upon the nature of the case being explained to the woman, she insisted upon being operated upon as soon as possible.

On April 14th ovariotomy was performed at the hospital of the Woman's Medical College, assisted by Drs. Michael, Browne, Ashby, Jay, Brinton, Graham, and two students. Several days previous to operation, the room had been scraped and whitewashed, and the floors and wood-work washed with carbolized solution. For one hour before operating the room was sprayed with carbolic solution, but the atomiser was removed previous to the entry of the patient, hence the operation was not performed under Listerian methods. No one was allowed to be present who had treated contagious diseases or had been in the dead house for forty-eight hours. Nearly all those present wore fresh clothes, and all were required to disinfect their hands and forearms. The operation was done as antiseptically as possible. The sponges were new and of fine quality, the instruments, silk, etc., all rendered aseptic by being soaked in carbolized water. After shaving the pubes and washing the abdomen well with 2½ per cent. carbolic solution, a compress wet with the same having been laid on over night, an oil cloth with a central opening was placed over patient. Her bowels had been moved, the vagina washed out and the urine drawn previous to being introduced into the operating room. The anæsthetic used was ether, but as is usually my custom, the patient was first rendered unconscious by chloroform, and the anæsthesia then continued by ether. No trouble of the heart was detected. By an oversight the urine was not examined. By an incision 3½ inches in length the tumor was exposed and found to be nearly free from adhesions. The large cyst was emptied by means of Wells' trocar and from 1½ to 2 gallons of a grumous, chocolate-colored fluid were drawn off. The cyst was now gradually extracted without the necessity of emptying the secondary cysts which seemed to be filled for the most part with a transparent jelly. The pedicle was ligated in sections and was then severed with the thermo-cautery, and dropped back into the pelvis. The left ovary being also diseased was removed in the same manner. All ligatures and sutures were cut short and returned to the abdomen. The tumor was estimated to weigh fifteen pounds. The wound was brought together by deep wire sutures clamped upon leaden plates, then deep silk sutures and finally the continuous suture for the skin. Iodoform was dusted over and around the incision, indoform gauze placed immediately in contact with the surface and Dr. Lange's heavy borated cotton dressing placed upon the outside. The patient was put to bed and hot bottles placed beside her. Moderate shock was present from which she reacted in three hours, when her pulse was 84 and temperature 99⅕. Distressing nausea soon set in, accompanied by severe straining. Some pain in the incision was also experienced. Nothing was allowed but cracked ice. At 1.30 A. M., eleven hours after the operation the temperature reached 100,⅕ falling at 6 A. M. to 99 . The nausea and vomiting continued, for which hypodermic injections of morphia were given and calomel powders gr. 1/10 each dropped every hour upon the tongue, which, however, did not relieve the condition. At 11 P. M. on the 15th the temperature reached 100 and pulse 130. During prolonged straining from nausea two wire sutures became unshotted, one of which was reclamped and as the other wire had receded into the tissues no effort was made to find it, especially as it was believed that the silk sutures would be sufficient. April 16, at 7 A. M., temperature 98⅘, pulse 125. Under oxalate of cerium she was able to retain a little milk occasionally, At 5.30 P. M. temperature again reached 100⅕, going down to 99⅗, at 9 P. M. the pulse being 125. Much straining and some pain were experienced during the day, for which a blister 4x4 was placed upon the epigastrium, and after 2 P. M. milk, whisky and laudanum were administered every four hours by enema.

April 17th, 6.30 A. M., temp. 99°; 10.30 P. M. temperature 99⅘. She was able to retain a few raw oysters, but suffered much nausea. 18th, 7 A. M., pulse 120, temperature 100. Under chloral by rectum she had a good night. 18th, 11 P. M., pulse 120, temperature 99⅘. She had somewhat of a respite in the nausea and retained considerable beef extract.

19th, 7 A. M., pulse 120 and feeble, temperature 99⅗. She had a bad night and vomited much, due possibly to drinking blackberry wine which some friend had brought her, and which the nurse foolishly allowed her to take. At 11 A. M., she had a copious vomit and the pulse became feeble and intermittent. Under the administration of whisky

per enema, and digitalis hypodermically with hot bottles to skin, she gradually reacted the temperature at 5 P. M. reaching 101⅘, pulse 150. At 11.30 P. M. the temperature had fallen to 99⅗ and pulse to 140. Absolutely nothing was allowed to pass her lips after 11 A. M. Thirty grains of chloral suspended in milk and given by enema acted nicely in procuring sleep.

20th, 6 A. M., temperature in mouth 97⅗, in rectum 100⅘; there is no nausea and she is able to retain milk punch and beef tea, but at 2 P. M. she began to fail and died on April 21 at 5 A. M., six days and fifteen hours after the operation, the highest temperature having been 101⅘, which rapidly fell. After the first few days there was absolutely no pain about the abdomen; strong pressure could be borne with impunity, and the patient could turn herself at will. No chill occurred at any time. No mental aberration or headache was present. The bowels moved several times. At first the urine was drawn, subsequently the patient passed it; it was normal in color and appearance, and sufficient in quantity.

A point of interest in connection with the nausea is the fact that her mother and sister are both said to have died from vomiting and this woman herself was very subject to spells of nausea.

Sectio cadaveris.—Only a hurried and incomplete examination was obtained. The lower portion of the wound was firmly healed. At the upper portion the union was not so good, a space existing between the recti muscles. The gap between the muscles was, however, closed by the omentum, which had formed adhesions to the edges and so completely closed the abdominal cavity. A small quantity of bloody serum was found at this point. Upon opening the abdominal cavity absolutely no peritonitis was discovered. No collection of fluid was found. Not a drop of pus could be seen anywhere except at one suture hole. The pedicles were examined. The burnt ends were covered with adherent lymph, and had contracted adhesions to the surrounding parts. That portion of the pedicles which projected beyond the ligatures was absolutely healthy and had not in the least sloughed.

In considering the special features presented by this case, one is at once struck by two facts of grave omen in regard to prognosis: the prolonged and uncontrollable vomiting and the disproportion between the pulse rate and the temperature. Later in the history of the case restlessness was superadded as an unfavorable symptom.

From the very beginning the pulse rate was largely disproportionate to the temperature, and with the vomiting seemed to be due to some impression made upon the sympathetic nervous system.

A point of marked interest is found in the post-mortem appearances, to wit.: the absence of any sloughing of the end of the pedicle, the peritoneal covering of which was as smooth and shining as if no operation had been performed; and to this extent corroborating the experiments of Mears and Longstreth upon animals.

Selected Paper.

ON EARLY AND LATE REMOVAL OF ABDOMINAL TUMORS.*

BY SIR SPENCER WELLS, BART.,

Late President of the Royal College of Surgeons of England.

Twenty or twenty-five years ago, when the removal of any abdominal tumor was very seldom attempted—when ovariotomy was on its trial—when uterine tumors were generally considered as beyond the art of the surgeon—early operation was the rare exception to the general rule only to act when the necessity for attempting to save life from great or immediate danger was so evident that failure could lead neither to surprise nor blame. The operation might not succeed in saving life; but it scarcely shortened it, and the patient only lost a few days or weeks of a suffering life. Then as ovariotomy rose to the position of lithotomy among surgical operations—when it became known that from a mortality of 70 or 80 per cent. the recoveries soon equalled the deaths, and then advanced rapidly with increasing knowledge year after year, until almost all the favorable cases recovered, and almost every death was in a case recognised, before operation, as more than doubtful, it became needful to utter a word of warning against indiscriminate or thoughtless proceedings. Afterwards, when the strictest hygienic precautions were supplemented by antiseptics, and improvements in operative detail were generally adopted, success became so great that ovariotomy not only took its stand as by very far the most successful of any capital operation in surgery, but the risk attending it in a favorable case could truly be calculated as little, if at all, greater than that necessarily attending any case of natural childbirth; and, as a necessary consequence, early operations could be advised with less hesitation.

Then, as ovariotomy led to the removal of uterine tumors, and the terms hysterotomy, hysterectomy, myomotomy and fibro-myo-

*From the *Med. Times and Gazette*, July 5th, 1884.

motomy crept into surgical literature, much the same change in professional opinion and practice has been going on. At first, it was only after an error in diagnosis, not discovered until the operation had been begun or completed, that a large solid uterine tumor was removed. Knowledge so acquired, and success thus occasionally obtained, led to more accurate diagnosis, and more frequent operations; and, just as in ovariotomy, to improvements in all the details of practice, and to a rate of mortality which has diminished rapidly, success having been attained under such unfavorable conditions as a few years ago would have justified any surgeon in refusing to comply with the earnest prayer for relief from an almost dying woman.

Again it became needful to sound a note of warning, and to suggest that the analogy between ovariotomy and hysterectomy must not be carried too far—that in many respects the two operations, especially as to the time when they should be performed, stand upon very different ground. A considerable proportion of ovarian tumors, sufficiently large to cause suffering or some inconvenience to a patient, or to lead her to seek for medical advice, sooner or later absolutely demand operative treatment. An equally large proportion of uterine tumors do not require any treatment, cause very little suffering or inconvenience, and disappear partially or entirely not very long after the cessation of menstruation. It is only in exceptional cases that hæmorrhage, or unusual effects of pressure from tumors of mode rate size, or excessive growth of the tumor, lead to a consultation as to the removal of a uterine tumor. In cases of ovarian tumor, removal is the rule of treatment. With uterine tumors it is the exception, not so rare as it used to be, but still the exception; and in cases where excessive periodical loss of blood is the reason for operation, the alternative proposal has to be taken into account of removing both ovaries and cutting off the supply of blood instead of removing the uterine tumor. No such alternative proceeding can be considered in a question of ovariotomy, unless drainage in cases where it is impossible to completely remove an ovarian cyst can be considered as analogous.

Many writers on this question of early or late operation seem to be remarkably forgetful of the fact that the surgeon cannot do exactly as he pleases with his patients. In many cases where he would have liked to operate early, he does not see the case until the tumor is very large and the patient in extreme suffer ing. In others his advice must be modified by the circumstances of the patient. She may be a poor woman who must earn her living, or a rich one who can obtain every appliance that can afford relief; and although many patients are ready to act as they are advised and willingly submit to what is thought to be best in their own case, many others cannot or will not shake off their hopes and fears, their affections or their interests, and the surgeon, while giving information or advice, must leave the decision to the patient or her relatives. There are patients upon whom it is quite right to operate much earlier than the necessity of the case demands. A marriage has been arranged and cannot be indefinitely postponed; or a married woman wishes to accompany her husband to India, Australia, or elsewhere, or to join him there, and as an invalid can do neither; or a sensitive girl is distressed by remarks on her appearance. On the other hand, there are patients who determine, in spite of urgent advice, to defer operation as long as possible. A widow whose children are entirely dependent upon her annuity—a wife devoted to the care of a sick husband or child, must think of others more than of herself, and every surgeon of much experience has met with both classes of cases. He is not playing with chess men. He is dealing with intelligent human beings, who are influenced by their emotions and passions, and are very seldom free agents; and he can do little more than say what, to the best of his knowledge and belief, will be the probable course and duration of a tumor if left alone, what is the amount of risk probably attendant upon its removal, and what security can be reasonably offered that recovery from the operation means a complete cure—in other words, that there will be no return of the disease.

Here again the contrast between uterine and ovarian tumors is remarkable. A woman who recovers, in any form of non-malignat disease, after ovariotomy is restored to complete health. If one ovary only is removed she may bear children of both sexes. The probability of disease occurring on the other side is not more than 1 in 100. If both ovaries are removed, this small drawback is removed; but young women become sterile.

All this has been completely established, but we are still imperfectly supplied with facts as to the subsequent conditions of women after removal of large portions of the uterus, with or without removal at the same time of one or both ovaries. I know of several where after some years the health has remained surprisingly good. The details of such cases may be found in my last work on ovarian and uterine tumors. I have seen other cases where it has been impossible to remove the whole disease. Subserous myomata have been removed, while mural growths have been left, and the patient may have been relieved, but not cured. In the present day such a case would probably

be subjected to removal of both ovaries as well as to myomotomy. But before any general rule of practice can be laid down, or any really accurate information or trustworthy advice can be given to a patient who has a uterine tumor, we must have as full and as precise histories of long series of cases as we have obtained with regard to ovarian tumors and ovariotomy. We shall probably have, at the Copenhagen Congress, from Professor Olshausen, of Halle, very important additions to our knowledge in this direction, and we have still to learn much as to the effect upon uterine growths and out-growths of the removal of the ovaries. Vague unsupported assertions have little influence upon the opinion of a thoughtful or skeptical profession. And just now something more than a word of caution against rash, dangerous, unnecessary operations is called for. We are startled by reports of the removal of the normal ovaries of young women suffering from nervous disorders which may be exaggerated or imaginary; and it is to be feared that our professional honor is at stake; that statements are publicly made which, when challenged, cannot be substantiated; and that abdominal surgery in its latest developments is open to the denunciation hurled against the earlier ovariotomists; and that, with more reason than in 1850, Lawrence's question must be repeated, whether such operations "can be encouraged and continued without danger to the character of the profession," and West's assertion that "a fundamental principle of medical morality is outraged," cannot now be satisfactorily refuted.

THE NEW FEBRIFUGE KAIRIN—The reports of the remarkable anti-pyretic effects of kairin continue to increase. Most observers seem to agree that it is best to begin in adults with a dose of about 12½ grains, to repeat this two hours later, then to administer 9 grains every two or three hours later, until the desired effect—decrease of temperature—has been obtained, when a smaller dose, about 5 grains, employed every three hours, usually suffices to keep down the temperature. But at the least indication of this falling below normal the remedy must either be omitted or given in very small doses and at very long intervals—say 3 grains every twelve hours. Should, however, the temperature again ascend, the same course as described must be gone through anew.—*Philadelphia Medical Reporter.*

Society Reports.

PHILADELPHIA COUNTY MEDICAL SOCIETY.

(*Specially reported for Maryland Medical Journal.*)

(*See p.* 221.)

DISCUSSION ON MALIGNANT PUSTULE.

Dr. Tyson: I regret that I can add nothing from personal experience in this interesting disease. It is to be regretted that there was no microscopic study of the blood, with a view to determining the presence of the bacillus anthracis. For although there appears to be less doubt as to the causative relation of the bacillus of this disease than of any other, it is still important that observations should be multiplied in this country, most of the investigations having been made abroad, in France and Germany.

Dr. Shakespeare: It would have been very interesting to have noted the microscopical appearance in these cases, and to have proved the diagnosis by inoculation. The author of the paper admits the bacillus anthracis as a cause, or at least as a concomitant of the disease. I cannot agree with him as to the inference from failure to inoculate the lower animals. It is known that these may resist infection, either from protection by previous attacks, or from special idiosyncracies. But such protection can scarcely be claimed to exist when the disease does not exist, and anthrax is extremely rare among the cattle of this country. By inoculation in some animals, such as the house-mouse, we can nearly always make a diagnosis in the earlier stages, and if resort be had to the microscope, the diagnosis is nearly certain. I paid considerable attention to the subject of anthrax in the lower animals during my recent visit to Koch's laboratory. It is worthy of remark that the field-mouse, although much like the house-mouse, and some species of sheep, seem to resist well the infection. We are principally indebted to French observers for our knowledge on this matter. I had no difficulty in isolating, cultivating, and inoculating the anthrax bacillus. The animals died promptly, and their blood-vessels were found obstructed, and in the lungs absolutely plugged by the typical bacilli, arranged in twisted filaments. The cases in the human subject are rare in this country, and it is remarkable that four should have occurred in the practice of one surgeon in so short a time. The occurrence of this and other diseases in man, as an infection from animals, shows the great importance of scientific study of the diseases of these animals, a matter which in this country has not yet received adequate consideration.

Dr. Wm. H. Pancoast: The contagious character of malignant pustule is said to be due to the presence of the bacillus anthracis or bacterium, which is said to have just been discovered by Pollender, in 1849. Davaine gave it the name of bacterium, which is generally used in France; Cohn, of Germany, employed the term bacillus anthracis.

I was present some years ago at a meeting of the Academy of Medicine, in Paris, during a heated discussion of this subject. Pasteur, I believe, was present, and took part in the debate. It is in print that Pasteur states that the bacillus may be developed in the earth surrounding buried carcasses, and may be thus cultivated—that the worms in the earth may work to the surface and distribute the bacillus to the adjacent vegetation. If this is a fact, it may explain the origin of the cases described by Dr. Janney occurring among farmers.

I have never seen a case of malignant pustule in my own practice; but several years ago I saw one in the service of my father, in the Pennsylvania Hospital. The patient was a knacker from "the neck," and had acquired the contagion in skinning some dead cattle. The pustule was upon the right arm, if I recollect correctly. In spite of every effort the patient died from the poison.

I am impressed with the value of the hot iron in such cases—making free incisions, and pushing the iron at a white heat into them and into the wound, so as to destroy the bacillus. The hot iron is a king attractive, and one of the very best. It not only destroys the part it touches, but the heat radiates beyond and effects molecular change in the deeper parts. Carbolic acid does not penetrate so deeply.

I think it is important to open the pustule freely, and to tap with a fine-bladed knife the surrounding parts of swollen and inflamed tissue; to use what I call the antiphlogistic touch of the knife—not simple or multiple incisions, but numerous punctures, as many as may be required to relieve the inflammation or let out the congested blood. I find this method very useful in many chronic and acute inflammatory congestions.

In opening an ordinary carbuncle, one non-malignant, I also think it is important to incise freely. In an ordinary boil there are only a few masses of cellular tissue inflamed, and a simple straight incision from without inwards, and out again, will open them all; or numerous punctures with the antiphlogistic use of the knife. But in a carbuncle there are so many pockets of inflamed cellular tissue, that a simple linear incision and even a crucial one will not open them all. I therefore make one free incision through the (carbuncle) inflamed mass, and then, with the same curved bistoury incise freely, and in every direction subcutaneously, the sides of the inflamed mass on each side of the straight incision. By this method, with only one incision, I open freely and penetrate the knife deeply into all the inflamed tissues, making the greatest antiphlogistic impression, yet leave only one straight scar.

(Dr. Pancoast asked Dr. Janney if there were any anatomical post mortem characteristics; if the rigor mortis had set in early; if the body was cyanosed, or if there was much hypostatic congestion or extravasation of blood.

Dr. Janney answered that there was no post-mortem examination made.)

Dr. S. Ashhurst: I recall the case referred to by Dr. Pancoast, as occurring in the practice of his father, Dr. Joseph Pancoast. He used, however, a more energetic means than the hot iron, viz., a strong solution of zinc chloride. For my own part, I do not like the hot iron.

Dr. Stone: I wish to ask Dr. Janney if he has any theory to account for the favorable result obtained in the treatment of one of the cases.

Dr. Pancoast: Would inoculation of the lower animals show itself sufficiently early to be of use in diagnosis?

Dr. Shakespeare. Small animals, such as mice, die in twenty-four hours after inoculation.

Dr. Tyson: Is the appearance of the pustule an evidence of the general involvement of the system, and, if so, what advantage is to be gained by treatment of the local manifestation by cauterization or excision?

Dr. Shakespeare: It is true that after the disease has reached the general system, cauterization of the local manifestation, except in so far as the latter constitutes a depot for the continued production of the disease germs which may still be added to those already in the system at large, is useless.

Dr. Janney, in closing the discussion: I think that many cases of malignant pustule occur in this city, and are not reported. I cannot be absolutely positive that my cases were malignant pustule, because no microscopic examination was made. I judge from the character and clinical history. In three of the cases no cause could be traced; in the fourth there was only the supposition of cause, since the patient had been among conditions that might be a source of infection; Dr. Welsh saw one of the cases and thought it was malignant pustule; Dr. D. Hayes Agnew saw the fourth and pronounced it the disease.

As regards treatment, in one of the cases it was evident that no local treatment would avail. I have a theory that in the favorable case the early incision and the injection of carbolic acid in the lips destroyed the bacillus

germs, which had as yet not extended to the cheek. The remedy that seems of greatest value in this disease, as indeed in other forms of blood-poisoning, is chlorine water.

After the debate *Dr. Pancoast* stated that he liked chloride of zinc as an alternative application, having learned its value from his father's practice; that he used it on chancres, cutting them out when possible, and applying it on the raw surface, and also upon morbid growths. But in the bites of dogs he also used the hot iron for its radiating effect; and while he might use it as an application to malignant pustule, yet he would also use the hot iron, pushing it into the incisions.

Dr. Shakespeare regarded the affection more commonly called anthrax as a very different thing from malignant pustule. It is the latter which has the same cause as anthrax in the lower animals. The remarks of Dr. Pancoast concerning carbuncle recalled his intention to say that the incandescent iron is a more proper remedy for malignant pustule. It is our most effective bactericide. Carbolic acid may not penetrate nor destroy even when we use the concentrated solution, for this becomes dilute by contact with the tissues. The bacillus of anthrax often contains spores; these will be propagated from pus and cannot be killed by dilute carbolic acid. It appears that the most efficient chemical agent for the purpose is a strong solution ($\frac{1}{1000}$) of corrosive sublimate. But since it is a question of life or death of the patient, with the probabilities against him, he thought the surgeon should not be influenced by cosmetic considerations, but should promptly and with a free hand apply the most certain means of killing the bacillus while it is brooding, and before it has spread beyond the pustule.

HENRY LEFFMANN, M. D.,
Reporting Secretary.

TRACHEOTOMY IN CROUP.—In a paper on this subject (*Med. News*, July 12th,) the author, Dr. George Gay, of Boston, offers the following reasons for resorting to tracheotomy in membranous laryngitis:

The disease is always dangerous, and very often fatal.

The results obtained from medical treatment alone are extremely unsatisfactory.

Tracheotomy gives more relief, and saves more lives, than any other method of treatment known to the profession.

It seldom hastens death, and still more seldom causes it.

Finally, it affords the friends the great and lasting satisfaction of knowing that everything possible has been done for the patient.

Editorial.

THE SANITARY CONDITION OF BALTIMORE.—The sudden and severe outbreak of cholera in Toulon and Marseilles, is a very important and suggestive theme for our consideration at this time. In these days of rapid transit a week or ten days is sufficient time for the introduction of the disease into our own ports, and this can only be prevented by the most stringent quarantine regulations. It is with satisfaction we note the fact that the United States Government has ordered its consular officers to inspect all vessels which are about to sail for this country, and to report by telegraph all such as have either evaded or refused such inspection. A rigid quarantine is also enforced against all vessels arriving from infected ports.

Important as these measures are, great risks of failure in preventing the introduction of cholera into this country will be incurred unless each municipality is zealous in putting itself into such a good sanitary condition that the necessary nidus will not be afforded for the propagation of the disease. An inquiry of great importance to the people of Baltimore at present, is, What is the sanitary condition of our city? There are certain evils which are chronic, and their abatement does not seem probable for a long time. The worst of these is, perhaps, the system of cess-pools which prevails; the city being honeycombed with thousands of these death-traps, which impregnate the air, soil, and in many instances the water with their baneful products. The only precautions which can at present be taken are the official inspection of all such pools, and their compulsory cleansing and disinfection.

Baltimore has been bountifully favored by nature in regard to surface drainage, but it does not do to trust entirely to its natural advantages and the storms for the cleaning of our streets and alleys. It can scarcely be gainsaid that the condition of our streets is not satisfactory. With some notable exceptions, the paving is bad, and in many streets large holes exist, which are both dangerous to horses and vehicles, and serve as convenient receptacles for filth. The streets are not swept sufficiently often, and whilst this is true of almost all the large streets, it is eminently the case in regard to the lanes and alleys. Many of our

alleys are reeking with filth, in many cases not having been cleaned for weeks or months. If it is necessary to neglect any portion of the city it would be better to let the streets take care of themselves, and to look after the alleys, for in the one case only ordinary street dirt accumulates, but in the other all kinds of refuse and offal is to be found, such as dead rats, cats, dogs and chickens, fish remains and garbage. Let the byways have a little more cleaning and a liberal allowance of lime. With the superabundant water supply of Baltimore, flushing the gutters from the fire-plugs should also be of more frequent occurrence.

There is another evil to which reference may be made in passing, namely, the irregular and autocratic manner in which the garbage is removed. In the first place it should be taken away early in the morning, and then the public would not be treated to so many gratuitous odors, but this is a small consideration compared with the irregularity and neglect with which this duty is performed. It is sometimes almost impossible to prevail upon the scavengers to grant the favor of removing garbage which has been accumulating for days.

The market houses should also be inspected, and the debris more frequently removed. It is no uncommon thing to find large quantities rotten fruit and vegetables strewed upon the streets in the immediate neighborhood of the markets, and by so much adding to the ill odors which are common to such places.

The condition of the harbor and the various small streams emptying into it, is also a source of apprehension. As is well known the Basin is a large pond of nearly stagnant water into which an immense amount of filth from sewers, drains and vessels is being constantly deposited, and is a constant menace to the health of the city. The abatement of this nuisance is, however, too complicated a problem for the writer's consideration, and he can only express the hope that some means may be found which will satisfactorily accomplish the purpose. Jones Falls, the Harford Run and other tributaries of the Patapsco are not in the best sanitary condition. At present the bed of Jones Falls from Saratoga street to the Basin is a mass of liquid mud, as black as ink, and defiled with the drainage from many houses and factories.

Upon the eastern suburbs, not far from Bayview Asylum, is a nuisance of the rankest character, consisting of a good sized field in which refuse of various kinds is dumped. The odors from this place are of the liveliest kind, and when the wind is from the west pollute the air to an almost unendurable extent at Bayview, and directly favor the outbreak of epidemic diseases at that crowded institution. When the wind blows from the east these malodorous zephyrs are distributed to a large portion of the city. In many other sections of the city could we point out various unsanitary conditions; even Baltimore street is not free from them, as in some places can be found pools of stagnant water and mud puddles of respectable dimensions.

The above instances are only cited in order to draw attention to some of the most glaring ills which are in our midst, and which at no distant day might be the cause of epidemic outbreaks of one kind or another. Their correction must depend upon the efforts of the health officers of the city, but these efforts in order to be effective should not be too long delayed.

Relations of the Specific Gravity of Urine to the Proportion of Sugar.—It has been generally held that a high specific gravity was a strong indication of the presence of sugar in urine. So much importance is attached to this fact that a number of insurance companies only require the sugar test when the specific gravity of the applicant's urine reaches 1030 or over.

The fact, however, has been recognized that the specific gravity of the urine bears no definite and constant relation to the proportion of sugar in cases of diabetes. In a paper on "The Treatment of Diabetes Mellitus," read before the Section on Medicine at the recent meeting of the American Medical Association, the author, Dr. Austin Flint, Jr., related several cases of diabetes confirming the above mentioned fact. In a case which came under his own observation in December, 1883, and was under his treatment until April, 1884, on December 29, 1883, the specific gravity was 1038, with 28.4 grains of sugar per fluid ounce. 1036 and the proportion of sugar was The next day the specific gravity was nine grains per fluid ounce. In another case Dr. Flint found 4 grains of sugar per fluid ounce, the urine having a spe-

cific gravity of only 1011½. In another case in which the urine was examined every three or four days, he found a marked sugar-reaction in a specimen of urine with a specific gravity of 1010. Dr. Flint stated that he also repeatedly found sugar in urine of a specific gravity of about 1020, the quantity of urine in twenty-four hours being normal. The fact then remains that the quantity and specific gravity of the urine being normal does not in itself exclude the presence of sugar, although in most cases of diabetes the quantity of urine is increased and its specific gravity notably high. Dr. Flint concludes that in cases in which diabetes is suspected, the physician is not justified in excluding the disease when he finds no increase in the quantity of urine and a normal specific gravity. This fact should be considered by physicians who examine for life insurance companies, for whilst these companies do not rigidly enforce the rule of examining the urine for sugar in every case they demand it when the specific gravity is above 1028 or 30. Such companies would undoubtedly hold the medical examiner responsible for a failure to discover diabetes mellitus in an applicant whose urine was not examined for sugar even when a much lower specific gravity was shown than the one required as a test of this disease. It is evidently the duty of life insurance examiners to consider carefully the general physical condition of every applicant for insurance before omitting the usual tests for sugar in the urine.

Bidding for Students.—Our excellent contemporary, the *Medical News*, in its issue of July 19th takes occasion to criticise the practice of a Baltimore Medical College of sending out with its catalogue a circular inviting the physicians receiving it to recommend young men for admission on certain "special privilege" terms, which are set forth in the catalogue. The *News* says: "A few days ago the catalogue of the school was received by us in the regular way, and between its pages we found a postal card having upon it the address of the Dean, and containing the printed form above referred to, with a line left for the insertion of the name of the student so recommended. On examining the accompanying catalogue, we find that the "privileged student" is admitted for half the usual fees, which, without this reduction, are less than those of first-class medical schools."

"Such unlimited bidding for students," says the *News*, "can only have the effect of degrading medical education and lowering the institution which adopts it in the eyes of the better class of the profession—the very ones whose respect it should seek to win. And we would say for the benefit of the school concerned, that all who have commented on the matter to us have done so with a view to express decided disapprobation and contempt for the practice, of which the intent is so obvious."

In administering this mild rebuke to "a Baltimore medical college," our contemporary should, out of justice to other institutions of medical teaching in this city, have named the offending college. There are, at present, no less than five medical colleges in this city, and each institution must necessarily bear, in the minds of the readers of the *News*, more or less of the reproach which should fall upon the guilty school. The readers of the *News* in their surmises may as likely attach censure to one college as another, and, hence, all of our schools suffer by the act of one. We were of the opinion that our Baltimore schools were above the employment of methods of bidding for students which would draw forth censure from a member of the profession. We cannot think that a necessity exists for the use of such unnecessary expedients as are cited by the *News*. The two oldest institutions in our city are liberally patronized by students, and have sufficient repute to fill their benches without using doubtful methods or giving away their fees at greatly reduced rates. The younger institutions struggling into existence can have little motive for such practices since they claim to represent new ideas in their plans of medical instruction, and have pledged their institutions to methods of reform in their courses of study.

We prefer to think that the practice referred to by the *News* was simply accidental, and that the "nameless" college so gently rebuked by our contemporary does not, *as a rule*, resort to such expedients. We have always contended that medical education was conducted in this city in a manner to reflect credit rather than dishonor upon the cause of medical education, and we still hold to this opinion. We prefer to hope that the conditions of admission to the profession are being yearly made more, rather than less stringent by our medical institutions in this city.

Operative Delay in Malignant Tumors.—Much bad surgery results from a delusive postponement of operative interference in malignant diseases. Instant removal is to be practiced in such cases, provided the patient is deemed fit to stand the surgical shock.—*Roberts on Surgical Delusions.*

Miscellany.

CROUPOUS PNEUMONIA IN DAMP WEATHER. A vast amount of literature upon the subject of acute pneumonia has been published during the last twenty years. So vast indeed that it might well be supposed that the last instructive word must have been uttered a long time ago, and that the writings of to-day can only contain oft-repeated facts clothed in a varied form of literary dress. A recent paper by Dr. A. Seibert, of New York (*Berl. Klin. Wochenschrift*, No. 18, 1884), however, attacks the very difficult question of the influence of the weather upon the occurrence of the disease, and brings forward certain considerations which have received but little attention in most of the standard text-books and special treatises upon this subject. Sudden changes of temperature, and the prevalence of certain winds at various seasons of the year, have been held responsible for the causation of the disease by almost all writers. According to many authors the climatic conditions which give rise, or predispose to, croupous pneumonia, are not identical with those which are associated with the occurrence of the general catarrhal affections of the respiratory organs. Dr. Seibert's experience leads him to hold an exactly opposite view to this, and in support of his own belief he enters into a critical examination of the works of others upon the same subject, with the following results. The prevalence of pneumonia during the colder months of the year is proved by the statistics of several observers. In almost all their tables the disease is shown to be at its lowest during July, August and September. Dr. Seibert's cases prove that this rule holds good in New York as well as in Europe. The frequency of catarrhal affections during the same period, was denied by Professor Jürgensen, but a later series of observations, emanating from the same school, have been carefully tabulated by Keller; the tables showing beyond dispute that the cases of the catarrhal and of the croupous forms of inflammation have occurred in close correspondence with one another. The precise atmospheric conditions, however, have not been sufficiently clearly defined, the relative moisture of the air during any given period being roughly estimated by the amount of rainfall. The fallacy of this method of reckoning is demonstrated by Dr. Seibert with considerable force. A month's rainfall may simply imply the amount of rain which fell on one excessively wet day, the remaining days being dry and fine. A still greater fallacy is that which assumes that rainfall is under any circumstances a trustworthy criterion of the relative moisture of the air. The air may often be comparatively dry upon a rainy day, and is frequently very moist on a day when no rain falls. To determine with any approach to accuracy the relation of the atmospheric conditions to the prevalence of this or that disease, it is absolutely necessary to observe the *daily* changes of barometric and hygrometric readings. With low barometric pressure there is frequently associated a relatively moist condition of the atmosphere, and observation both in America and Europe has shown the connection of pneumonic attacks with both these states. In a long series of cases the commencement of the disease was found to be coincident also with a sudden fall in temperature, the relative moisture remaining the same. The fact that in the cool and cold periods of the year the moisture of the air rises and falls with its temperature is generally well recognized, and Dr. Seibert's cases go to prove that it is especially during periods of variation from this rule that both acute pneumonia and catarrhal affections of the air passages are most prevalent. The ordinary teaching of climatologists is fully in accord with this view. Cold moisture is always more or less obnoxious to the physiological perfection of the body and is especially liable to produce catarrh, but the question whether a previously catarrhal condition of the mucous membrane is essential for the development of the specific exciting cause of croupous pneumonia must remain as yet undetermined.—*London Medical Times.*

THE ANTAGONISM OF DRUGS.—Dr. Walter G. Smith (Dublin Jour. of Med. Sci., Jan., 1884) begins by defining the term and distinguishing between it and "antidotism." An antidote is a substance which, by chemical action, can deprive another substance of its properties, rendering it inert, or at least insoluble. An antagonist is a substance which produces effects opposed to those of another substance already absorbed. Antidotes act *chemically*, and neutral-

ize the substance; antagonists act *dynamically*, and oppose the effects of the substance on the system. Example of antidote: Sodium sulphate and acetate of lead = lead sulphate (insoluble). Examples of antagonism: Atropine and morphine, chloral and strychnine. The author calls attention to the most famous views on the subject of antagonism, using the case of atropine and pilocarpine as an illustration, as follows: If atropine is injected into a cat, the salivary secretion is arrested at once; the secretion is restored by the injection of pilocarpine. Rossbach explained this on the hypothesis that the pilocarpine acted by stimulating to excessive action the few gland-cells not paralyzed by the small dose of atropine. A more generally accepted view is that of Langley: that the cells are prevented from acting by the atropine, but act again so soon as pilocarpine enough is given to triumph over the atropine. This view he supports by continuing the experiment indefinitely, giving first a small dose of atropine to check secretion, restoring it then by a small dose of pilocarpine, checking it again with more atropine, restoring it again with more pilocarpine, and so on, many times in an hour, as long as the integrity of the tissues permits experiment. This seems to demonstrate, that when two medicines are given whose effects are directly opposed, the organ affected reacts to the medicine which is given in larger dose, and is affected to a degree corresponding with the excess of the large dose over the small one. To illustrate this, if five grains of one medicine exactly antagonize five grains of another, and if seven grains of the one and five grains of the other are given simultaneously, the effect will be the same as if two grains of the former had been given alone. If five grains of each are given simultaneously, the effect is the same as if no medicine had been given. In such a case a true antagonism would exist between the two drugs, their actions summing themselves up algebraically like *plus* and *minus*. It must be admitted that even in the case of such antagonism it is easier to reduce an excessive stimulation down to the normal by a suitable antagonist than to accomplish the converse—*i.e.*, to level up a condition of extreme depression. For example, chloral hydrate is more likely to save life when a fatal dose of strychnine has been given than strychnine is to save life after a fatal dose of chloral hydrate. It must also be admitted that the antagonism of drugs is beset with limitations, the antagonism being sometimes true only for certain doses, or remaining true for certain organs longer than for others. For instance, gr. $\frac{1}{100}$ of atropine helps the action of grain $\frac{1}{6}$ of morphine, but gr. $\frac{1}{30}$ of atropine counteracts the effect of gr. j of morphine. The antagonism between atropine and morphine persists in the pupil long after doses have been reached in which both act as depressants of respiration. A further difficulty in the matter of antagonism is the fact that too large doses may affect the tissues of the body so that the organs may be paralyzed and the antagonism not demonstrated. For instance, if a very large dose of atropine is given, the salivary glands may be so thoroughly paralyzed that no quantity of pilocarpine will restore their function. At the same time, enough atropine may be given to counteract three and a half times the fatal dose of physostigma (Fraser). The therapeutic importance of clearing up this matter is simply incalculable, and its significance can not be overestimated.—*N. Y. Medical Journal.*

Phenic Acid as an Injection to Abort Buboes.—Taylor reports twenty cases in which he obtained a sure and remarkable result. In the last seven years he has treated thus nearly fifty cases of various forms of lymphangitis both specific and non-specific. Where he operated before the formation of pus, progress was immediately arrested and pain soothed in a few minutes; this method consists in injecting 10—14 gtt. of phenic acid directly into the inflamed gland.—*L'Union Medicale du Canada.*

The Danger of Visiting the Sick.—There are certain diseases in which cheerful society is one of the best agents in waking the sufferer from his apathy and preventing him brooding in despair over real or imaginary sorrows, or, in other words, in which a gentle stimulus calls forth latent energy, or turns that inaction into a healthier channel. But even in such cases it should be remembered that there is a point at which physiological exaltation passes into morbid excitement, and if this be overstepped the patient has to pay

the penalty in subsequent exhaustion, loss of sleep, and waste of over-wrought tissue. But it is concerning other classes of patients that we would especially give a few words of caution and advice. Acute illnesses in any form, and specific fevers in particular, require a judicious supervision on the part of the medical attendant, who should regard it as much a part of his duty to limit the visits of anxious friends as to order the daily sustenance of his charge. When the process of assimilation, and so the renewal of energy, is brought to its lowest ebb—*e.g.*, in an exanthematous fever—every effort should be made to enable the patient to maintain his reserve of power, and not waste it in response to the well-meant but ill-advised attentions of solicitous relatives. Another argument in favor of this contention is that when the mind is clouded by the influence of some toxic agent, or when the centers of organic life are assailed by the explosive shocks of racking pain, there is less desire for the tender caress and sympathetic tear. It makes us shudder to think of the consequences entailed by the afternoon visits of friends to the inmates of our general hospitals. Physicians have occasionally taken the pains to ascertain the effect of the excitement on the body heat of the patient, and with the result of finding that it now and then amounted to a sharp, though usually short-lived, elevation. Again, imagine the danger of emotional excitement to a delicate female, almost pulseless from protracted hysterical vomiting. What is more calculated to arouse and throw into disorderly, and perhaps fatal, activity the forces upon the conservation of which the continuance of life depends? As we write we have before us a letter setting forth the reckless exposure to danger that is daily going on in connection with some of the London small-pox hospitals. Relatives of patients are allowed to enter these institutions, converse with their friends, and then, without the slightest attempt at disinfection, to carry away the contagium of variola into the crowded paths of human intercourse.—*Lancet.*

TANNATE OF CANNABINE AS A HYPNOTIC.—Pusinelli("Berliner Klin. Wochenschr.," "Deutsche Med.-Zeitung") has lately been testing the properties of this preparation, recommended some time ago by Fronmüller as the best one for producing the hypnotic effects of Indian hemp without the unpleasant collateral effects of the drug. He has given it sixty-three times, in various sorts of cases, in doses of from a grain and a half to seven grains and a half, in the form of powder. In rather more than half the cases the result was satisfactory, deep and prolonged sleep being produced promptly; but in the other cases the effect was either insufficient or *nil.* He concludes, therefore, that, while the tannate of cannabine is entitled to be ranked with the hypnotics, it can by no means take the place of the others.—*N. Y. Medical Journal.*

THE COAGULATION OF BLOOD.—According to the theory of Hammarsten the fibrin of coagulated blood is formed from the fibrinogen alone of the plasma under the influence of the fibrin ferment. While according to the older, and, at present, more generally accepted view of Schmidt, paraglobulin or fibrinoplastin is a necessary factor in the formation of fibrin.

Hammarsten's experiments were made on the blood of mammals, and, so far as I know, have never been corroborated by any other investigator. A desire to test the correctness of Hammarsten's theory upon one of the lower animals led me to a series of experiments upon the blood of the terrapin, similar to those made by him upon the mammal. The blood was received directly into a glass cylinder packed in ice, and allowed to stand for one or two days. At the expiration of that time the corpuscles had settled to such an extent that a quantity of clear plasma equal to about two-thirds of the original bulk of blood could be siphoned off. This plasma was filtered, to free it from white corpuscles, and the fibrinogen then precipitated by the addition of an equal volume of a saturated solution of NaCl. The precipitate was filtered off, dissolved in dilute NaCl solution, and the process of precipitation repeated three times in all. The final precipitate was dissolved in distilled water, and gave a solution of fibrinogen which contained not a trace of paraglobulin. When an aqueous solution of ferment, prepared by Schmidt's method, and likewise entirely free from paraglobulin, was added to the fibrinogen a firm clot was obtained in all cases. The amount of fibrin formed from the fibrinogen under the action of a power-

ful ferment was, according to one experiment, 69 per cent.

The solution of fibrinogen was sometimes slightly opalescent, sometimes perfectly clear. When heated to 56° to 60° C. complete coagulation occurred; the liquid when filtered from the finely granular precipitate and boiled, showed usually, not the slightest opalescence. In some cases a very faint cloudiness was observed. The action of my fibrinogen solution differs markedly in this respect from that obtained by Hammarsten from the mammalian blood. According to him only a portion of the fibrinogen, 65 to 91 per cent., coagulates at this temperature, the remainder staying in solution as a new globulin, and coagulating at a temperature of from 64° to 65° C.—*W. H. Howell in Johns Hopkins University Circular.*

Injections of Glycerine and Carbolic Acid for the Preservation of Bodies for Dissection.—Dr. O. T. Freer, of Munich, in the *Chicago Med. Journ. and Examiner* says: "During a course of dissection in the anatomical department of the University of Munich, I observed that the material showed a remarkable resistance to decay, being still fresh at a period when the average subject of Chicago's dissecting rooms is too much decomposed for use. The parts which I was dissecting were in almost as perfect a condition after exposure to the air of a warm room for from two to four weeks, as when they were first given me; and those portions from which the skin had not been removed remained entirely unchanged.

On inquiry I learned from Prof. Rudinger, Munich's anatomist, a man who has written numerous valuable works and done much for science by his original researches, that he preserved his subjects by injecting into the femoral artery a mixture of glycerine, carbolic acid, and alcohol, a method invented by himself and used here since 1872.

Since its introduction he had seen no bad effects from dissection wounds here.

He said that, according to the amount of injection-material used, subjects would keep from two to six months in a summer-temperature, the only necessity being moisture to prevent mummification.

The solutions used by Prof. Rudinger are:

(*a*) For preserving bodies for long periods, three to six months: Glycerine, 40 parts; carbolic acid, crystalized, 11; alcohol, 8.

(*b*) For preserving bodies from two to three months: Glycerine, 80 parts; carbolic acid, 17; alcohol, 13.

The amount injected varies according to the length of time it is desired to preserve the subject, from two to four liters being ordinarily used; but an average body will readily contain six and more.

The advantages of this method are, that the tissues preserve their natural appearance and pliancy from the commencement of an ordinary dissection to the end. Students, therefore, need not hurry their dissection, even in warm weather, as decomposition is so slow that the parts dissected last are in as perfect a state as those seen first. The solutions mentioned above do not whiten the tissues, which retain their natural appearance to the end."

The Treatment of Scrofulous Buboes.—Dr. Lhuillier ("Thèse de Paris;" "Bull. gén. de thérap.") treats of a variety of inguinal bubo which occurs in scrofulous persons between eighteen and thirty-eight years of age, and appears to result most frequently from excesses in walking or in venery, which cause engorgement of the inguinal glands and favor the localization of scrofulous disease in them, often quite independently of any other scrofulous manifestation. Syphilis also favors the occurrence, and it is then termed syphilo-strumous adenitis (*adenite syphilo-strumeuse*). Strumous adenitis calls for a general anti-scrofulous treatment, such as cod-liver oil, phosphate of lime, wine of cinchona, and especially preparations of iodine in small doses extending over a long period. During the stage of induration, local treatment is apt to prove fruitless, although applications of tincture of iodine may do a little good; when fluctuation is evident, however, there should be no hesitation, but the abscess must be opened freely, antiseptically, and with Paquelin's cautery if practicable, and an effort made to destroy the wall. If the patient declines to submit to the latter procedure, the cavity may be dressed with tincture of iodine or with iodoform. In the syphilo-strumous form the treatment is the same, but softening may be hastened by the use of mercurial plasters.—*New York Medical Journal.*

Treatment of Angeiomatous Growths.—Dr. H. O. Marcy writes in the *Archives of Pediatrics* for May, 1884, describing a method used by him for the removal of nævi. He states that he has for a considerable time employed in the treatment of a variety of vascular growths a suture which he calls "the shoemaker's stitch." The eye of the needle is placed near the point which is without cutting edges. Armed with the ligature, the needle, which is set in a strong handle, is thrust deeply under and quite

away from the vascular growth; emerged from the distal side the ligature is detached and the opposite end threaded, when it is withdrawn and again inserted purposely only a short distance from the first puncture, since it is important to include only a comparatively small portion of tissue.

Thus the process is repeated, stitch after stitch, until the entire mass is enclosed and the fixation is completed by a single knot. In this way uniform and steady pressure can be attained and maintained as long as is desired.

The purpose of the procedure is not to strangulate and cause necrosis of the tissue, but to constrict so as to reduce to the minimum the circulation and yet preserve its integrity. The author claims by this method the avoidance of the unsightly cicatrices sometimes resulting from the cure of angeiomatous growths.—*The Medical Record.*

Inhalations of Nitrogen in Pulmonary Diseases.—Dr. Sieffermann ("*Gaz. med. de Strasbourg*"; "*Bull. gen. de therap.*") thus describes the effects of these inhalations:

1. With the first inspirations, the patient declares that he can breathe better, dyspnœa diminishes, and at the same time a feeling of well-being supervenes. The pulse becomes small, often thready, from contraction of the radial artery. So long as the process lasts, enfeebled, anæmic, and nervous patients have vertigo, with a sensation of feebleness and of pressure in the head, sometimes deepening into faintness. These symptoms are observed only at the first two or three sittings; the patients have then become accustomed to them and always bear them perfectly well. The symptoms vary in degree with the amount of nitrogen administered.

2. According to Mermagen, the suppression of night-sweats is a constant result, most commonly following the second or third sitting. Other experimenters are not agreed upon this point, some, like Kholschutter, maintaining that the sweats are increased. But Mermagen is very positive, and affirms that it is only in desperate cases of florid phthisis that the sweating is not controlled. He adds that, if Kholschutter's experience differed from this, it is because he used air containing ninety-six per cent. of nitrogen, a mixture almost poisonous.

3. One of the most surprising effects, according to Mermagen, is the vary rapid disappearance of the dulness due to tubercular infiltration af the apex, which occasionally takes place after fifteen days of the treatment. Where an infiltration of the apex has been clearly made out, with dulness on percussion, bronchial respiration, and mucous râles, the vesicular murmur is heard again, with small moist râles and a tympanitic resonance. Kholschutter states also that he has seen dulness disappearwhen it corresponded to chronic infiltrations of the pulmonary parenchyma or to pleuritic exudates. But in several cases he observed the cough become more frequent, and the temperature rise nearly to 104° Fahr. He asserts, indeed, that the temperature rises regularly after each inhalation, which he considers a bad symptom. Mermagen believes that this rise of temperature coincides with the disappearance of the infiltration from the apex, and therefore that it is due to an absorption fever. The two observers' disagreement as to the explanation is probably to be imputed to the fact that one of them used air containing only from two to seven per cent. of nitrogen, while the other employed air impregnated with eleven per cent. of the gas at the least, and sometimes even gave pure nitrogen, so that he often produced poisoning like that due to carbonic acid. By dearly-bought experience, Krüll afterward proved that, to get good results, not more than seven nor less than two per cent. of nitrogen should be added to the air; so that there is little room for doubt that the effects observed by Kholschutter are to be attributed to the use of excessive doses.

4. All observers agree as to the soporific effects. Mermagen says that he has seen more than one patient go to sleep while the inhalation was in progress, and that others were able to sleep for eight hours at a time, whereas before their night's rest had been prevented by cough and dyspnœa.

5. The appetite is perceptibly increased, and consequently the nutrition improved.

6. A good effect has even been observed upon colliquative diarrhœa, and in patients who were in a desperate stage of the disease.

Irritative cough was certainly ameliorated during the treatment, but the improvement did not continue. The compiler regrets that the breathing capacity was not tested with the spirometer and the pneuma-

tometer, for a comparative table founded on such tests would have furnished the best data as to the results of the treatment.—*N. Y. Med. Journal.*

Vomiting in Pregnancy.—Berry Hart (Edinburgh) finds in ten cases ten successes in the treatment of this symptom from giving every evening a pill containing

Iridin	20 cent.
Confection of roses	q. s.

followed the next morning by a saline laxative.

M. Gueneau de Mussy finds good effects from the following:

Euonymin	.05 to .10	grs. ¾ to 1½
Podophyllin	.02 to .03	⅓ to ½
Ext. Hyoscyami		
or Ext. Belladonnæ	.05	¾

Make one pill—to be taken at bedtime.—*Le Prog. Med.*

Unilateral Swelling of Hysterical Hemiplegia.—Dr. S. Weir Mitchell records in the July number of *The American Journal of the Medical Sciences* three cases of hysteria, in which there was unilateral increase in bulk, at or near the menstrual period, and also at other seasons, after emotional excitement, and he has been unable to find elsewhere any narration of similar cases. Whatever conclusions we may reach as to the immediate cause of the unilateral differences in size, which Dr. Mitchell has here described, it is at least clear that they are under the influence of the nervous system, and vary with the causes which also increase or lessen the analgesia, or give rise to chronic spasm. Beyond this Dr. Mitchell can as yet hardly go. Most probably, he thinks, it will be found that in many unilateral hysteric palsies a like phenomenon exists, and has merely escaped attention because of being the least prominent in a group of symptoms. At all events, it adds another to the large group of resemblances which so closely relate organic to hysteric hemipalsy.

The Activity of Vaccine Crust after a Half Century of Preservation.—We learn from the *North Carolina Medical Journal* (June 1884) of an unexampled case of long preservation of vaccine. The facts, which admit of no doubt, are these. During the term of office of Hon. Willis Alston, of North Carolina, as Representative in Congress from that State from 1803 to 1825, he received a package of vaccine from Dr. James Smith, of Baltimore, Director of the Vaccine Institution for the State of Maryland. The vaccine was imbedded in wax, and all enclosed in a wooden box. The directions accompanying the package bore the date of March 17th, 1812. This package of vaccine remained unopened until it fell into the hands of Dr. Willis Alston, of Littleton, N. C., a grandson of the above named gentleman, in May, 1869. At this date Dr. Alston vaccinated his servant with a part of the crust, which in due time took effect, leaving a well-defined scar. Dr. Alston pronounced the results as satisfactory as any he had ever had from any crust, bovine or otherwise.

Sulphide of Calcium to Prevent Suppuration in Small-Pox and Chicken-Pox.—Surgeon-Major C. J. Peters, of the British army in India ("*Indian Med. Gaz.*"), relates a number of cases in which he succeeded in preventing the suppuration of the cutaneous lesions, and therefore the secondary fever, of small-pox, some years ago, by the local use of a mixture of the pentasulphide and the hyposulphite of calcium (commonly called sulphide of calcium) prepared by boiling a quarter of a pound of quicklime and half a pound of sulphur in five imperial pints of water until the liquid was reduced to three pints in measurement, when it was filtered and kept in glass-stoppered bottles. If ordinary well or river water is used, a white precipitate is liable to form in three or four days, while the solution loses its color and is no longer efficacious; it should therefore be freshly prepared, in quantities only sufficient for three or four days' use. It is applied to the affected parts two or three times a day, with a feather, taking care that none of it gets into the eyes. As a rule, the pocks thus treated did not suppurate, but withered in the course of three or four days. The author believes that the lotion acts by destroying the germs of the disease, preventing suppuration, and guarding against the complications that result from blood-poisoning. He would now combine its use with the internal employment of the drug.—*N. Y. Med. Journal.*

Diarrhœa in Children.—Dr. Lees, in his paper, called attention to a class of cases, not very uncommon in children, in which the main symptom was an irresistible impulse to defæcation experienced almost immediately after food had been taken. Colic-pain might or might not be present; but there was no sensation of weight at the epigastrium, heartburn, flatulence, or other symptom of dyspepsia. The motions were usually semi-solid, not often watery or slimy, and frequently contained undigested food. Usually, a motion was passed almost immediately after every meal, and perhaps once or twice more during

the twenty-four hours. Dr. Lees pointed out that these symptoms were evidently due to a hyper-peristalsis of the alimentary canal without increase of secretion, the two factors of ordinary diarrhœa being here disassociated. Such increase of peristalsis was probably due to irritation of the vagus nerve, which supplied the excitor fibres to the intestine, the splanchnics conveying the inhibitory fibres. The proximity of the nucleus of the vagus to that of the trigeminus in the medulla indicated the possibility that this increased excitability of the intestine might in part be due to dental irritation, the cases in question usually occurring during the period of the second dentition. Believing in the purely neurotic origin of the symptoms, Dr. Lees had treated several cases with bromide of potassium simply, without opium or any astringent, and had obtained immediate success, even in cases which had persisted for several months. The diarrhœa was usually arrested in a few days, and occasionally the children became so costive that the medicine had to be discontinued. Four cases were narrated, also a similar case occurring in an adult, in all of which speedy relief was given by bromide. In conclusion, it was remarked that individuals who suffered from these symptoms were often of a markedly neurotic temperament, timid and easily frightened.—*Brit. Med. Journal.*

Billroth on Extirpation of the Kidney.—Operative interference in cases of renal calculus or other intractable conditions of the kidney is gradually becoming accepted as an orthodox surgical procedure. Recognizing this important fact, Professor Billroth has recently delivered an address on the subject of extirpation of the kidney, which will serve to establish the operation still more firmly in its position among the recent advances in abdominal surgery. Although unable to record any striking series of personal successes, he analyses with considerable minuteness the recorded results of others. Since the operation was first introduced by Simon fifteen years ago, there have been nearly 150 such cases put upon public record. For statistical purposes, however, these are far too few to form a basis for any trustworthy conclusions. The operations themselves have varied very widely. The nature of the disease for which the operation was undertaken, and, above all, the condition of the opposite kidney, are points so vitally important in determining the issue of each case, that no general comparison of cases can as yet be profitably made.

In all new operations also, it must be remembered that many cases are unsuccessful owing to the late stage of the disease in which the radical cure is attempted. The importunities of patients clamoring for relief at any cost cannot always be disregarded, and many operations are undertaken under pressure, which would never be attempted if the unbiassed judgment of the surgeon were left untrammelled.

Of 132 cases of extirpation of the kidney, 70 recovered and 62 died. For prognostic purposes such figures are worth absolutely nothing, but at any rate, they prove that in more than half the cases it is at least possible for recovery to take place after removal of one kidney. In classifying cases for operation, a special place must be reserved for those in which the removal of the kidney is really accidental, that is, in which the tumor to be removed has been diagnosed as non-renal, or in which such a tumor has become so firmly adherent to the kidney as to necessitate removal of the whole mass. Healthy kidneys have occasionally been removed, and sometimes successfully after injury, or for the relief of incurable urinary fistula. In one case of the latter, Professor Billroth himself operated with partial success, which, owing to the general enfeeblement of the patient's powers, was not maintained. In certain cases also of floating kidney, the healthy organ has been completely removed. Of 14 such operations, 8 were successful and 6 unsuccessful, partly from inanition and partly from peritonitis. Twelve of these cases were operated on through an anterior incision, and two through the loin.

Attempts at fixation of a movable kidney have hitherto failed, but in Professor Billroth's opinion, "we must not relax our efforts towards further search in this direction, and the devising of some new method of fixation, or by some other means to prevent the movable kidney from exercising a drag on the stomach. Perhaps one of these days a happy thought in this direction will occur to some one."

Extirpation of the diseased kidney may be undertaken for renal suppuration, hydronephrosis, or renal tumors. Professor Billroth himself has never performed complete removal of the kidney for renal abscess. In deciding to operate, the really important point upon which success or failure may turn, is the condition of the opposite kidney. In a few cases the establishment of a fistula and free drainage from the pelvis of a suppurating kidney may be followed by the passage of clear non-purulent urine from the bladder. There can then be no reason to doubt the health of the remaining organ. But in certain other cases, the passage of pus with the urine persists, notwithstanding such free drainage. In either case the indications are not really trustworthy, but at present no better guides can be relied upon. Looking to all these conditions, and also to the variety of mischances to which such

a procedure is liable, it must be allowed that the success of the operation in 22 cases out of 40 is really somewhat astonishing.

With respect to nephrectomy in cases of hydronephrosis, it must be borne in mind that such cases have occasionally been cured without operation, and, further, that they are not of necessity fatal. The diagnosis in the first instance is beset with difficulty. "The anatomical relations of the sac of a hydro-nephrosis," says Professor Billroth, "the relation of its contents to the ureter, and the indications given by their chemical composition, in which both urea and uric acid may be entirely wanting, the diagnosis by palpation and percussion, all these are very difficult matters, and I will not go closer into them at present. Like the diagnosis of abdominal tumors in general, they form but a contribution to the history of diagnostic failures, which are ever and anon demonstrating to us, *ad oculos*, the limits of our art." Nine cases in all are recorded of the extirpation of a hydronephrosis, and of these the majority were originally diagnosed as ovarian tumors. Six were completely cured and three proved fatal.

The statistics of nephrectomy for new growths are less satisfactory. Of 33 operations, 20 failures are recorded as against 13 successes. "One can hardly wonder" (at these results) "when one reads with a shudder of what has been attempted in this direction. It seems to me that here at least one has gone a little too far." In two cases operated on by Billroth himself and not hitherto published, good recovery took place. The first case, in which a large myxo-sarcoma was removed by abdominal section, and the second in which the lumbar incision was made, may be taken as type cases of the two forms of operation. Following Czerny, with his unprecedented experience of 18 cases of nephrectomy, Billroth expresses a decided preference for the lumbar operation. Although the removal of a healthy kidney through the loin may be effected with the greatest ease in the dead subject, it is quite a different matter to remove a suppurating kidney. The most important points are the finding and properly securing of the ureter, and of the renal artery and vein. The healing of the wound does not appear to be attended with any special risks, although abscesses may occasionally form.

Nephrectomy by means of laparotomy is attended with much greater risks owing to the exposure to septic infection of the peritoneal surface. The serous effusion which takes place from the edges of a fresh wound is the fluid above all others favorable for the development of all kinds of micro-organisms, and all possible means must be employed to prevent the access of this fluid to the peritoneal cavity. Professor Billroth observes, in conclusion, that operative interference in the cavity of the abdomen can only bring relief in a certain class of cases. "It is now the task of the present day to recognize and define still more clearly the class of cases in which surgical measures are of use. If we have here and there pushed the limits of surgical benevolence somewhat too widely, we may, without discredit, retract them a little as our experience extends, but at the same time fix them upon a still firmer basis. If the surgeons of to-day will not fancy themselves to be such all-powerful fellows, but will be content to follow with modesty the example of their brethren the physicians, indefatigably investigating and combining, we may yet succeed in bringing cure, or at least temporary relief of their troubles to still more unfortunate sufferers. This is, and always will be, the ultimate aim of our common scientific and humane endeavors, and the real end and object of our noble calling.—*Medical Times and Gazette.*

VIVISECTION.—During the year 1883, according to the annual report just issued to Parliament, five hundred and sixty-nine experiments were performed on living animals in the United Kingdom, thirty-four of these being carried out in Ireland. Fifty-five experiments were performed without anesthetics, and one hundred and twenty-two under certificates giving permission to preserve the life of the animal after recovery from anesthesia. Of this last class of experiments, the report states that in one hundred and fourteen cases the operation consisted of inoculation with various septic matters or morbific organisms, for the greater part connected with an important inquiry into the nature of tubercular affections. No pain was inflicted in these cases, except in about fourteen or fifteen instances in which disease was produced, but which was very trifling. In the remaining eight cases, in which more serious operations were required, as these were effected under anesthesia, the only suffering in the animals that survived would be that which attends the ordinary repair of a "surgical injury."—*Medical Press.*

GUN-SHOT WOUNDS OF THE SMALL INTESTINES.—In a paper with the above title, read before the Section on Anatomy and Surgery at the late meeting of the American Medical Association, by the Chairman of the Section, Dr. Charles T. Parks, of Chicago, the following conclusions were arrived at:

First. Hæmorrhage following shot wounds of the abdomen and the intestines, is very often so severe that it cannot be safely controlled without abdominal section; it is *always*

sufficient in amount to endanger life by secondary septic decomposition, which cannot be avoided in any other way than by the same treatment.

Second. Extravasations of the contents of the bowel after shot injuries thereof are as certain as the existence of the wound.

Third. No reliable inference as to the course of a bullet can be made from the position of the wounds of entrance and exit.

Fourth. The wounds of entrance and exit of the bullet *should not be disturbed* in any manner, except to control bleeding or remove foreign bodies when present. They need only to be covered by the general antiseptic dressing applied to the abdomen.

Fifth. Several perforations of the intestines close together require a single resection, including all the openings. Wounds destroying the mesenteric surface of the bowel always require resection.

Sixth. The best means of uniting the wounded intestine after resection is by the use of fine silk thread after Lembert's method. It must include at least one-third of an inch of bowel tissue, passing through only the peritoneal and muscular coats, never including the mucous coat. The everted mucous membrane must be carefully inverted, and needs no other treatment.

Seventh. Wounds of the stomach, small perforations, and abrasions of the intestine, can be safely trusted to the continued catgut suture.

Eighth. Every bleeding point must be ligated or cauterized, and especial care devoted to securing an absolutely clean cavity.

Ninth. The best method of treating the stumps of divided mesentery is to save the mesenteric surface of the bowel as above indicated.

Tenth. *Primary abdominal section* in the mid-line gives the best command over the damage done, and furnishes the most feasible opening through which the proper surgical treatment of such damage can be instituted. Further, its adoption adds but little, if anything, to the peril of the injury.

Length of the Foot in Relation to the Volume of the Fœtus.—Dr. Gonner, in a contribution to the treatment of pelvic presentations, gives the results of his study of the length of the fœtal foot in its relation to the volume of the infant. His observations were made in 100 consecutive births at the Obstetrical Clinic at Bâle. He finds the length of the foot to be 8 cm. in a typical child weighing 3,000 grammes. When the length of the foot is greater than 8 cm. the child is larger than a fœtus at term. When the natural pelvic measurements are taken into account with these fœtal measurements we have sufficient data to form a prognosis as to the birth of a living child, or the necessity of some destructive operation. These calculations are not applicable to hydrocephalics or other monstrosities. A foot which measures 7 6-10 centimetres denotes a child of average volume. One less than 7 3-10 centimetres a fœtus before term. With the same length of foot girls are heavier than boys. The vocation of the parents and national or race peculiarities must also be taken into consideration.—*Journal de Med. de Paris.*

A Contribution to the History of the Ligation of the Common Femoral Artery.—In a paper with the above title, contributed to the *Medical News* (July 5th, 1884), the author, Dr. L. McL. Tiffany, of this city, sums up the following conclusions after a study of recorded cases:

1st. Ligation of common femoral in continuity for distal wound is attended with great mortality, and should not be substituted for the application of ligatures to an artery above and below the point wounded.

2nd. Ligation of common femoral for elephantiasis or aneurism is proper.

3rd. The crural sheath should be freely opened and the vessel carefully examined for the origin of the profunda and epigastric, the ligature not to be tied within a half or three-quarters of an inch of either.

4th. Half or three-quarters of an inch below Poupart's ligament will probably be the most favorable locality for the ligature.

5th. The presence of a small branch near the seat of ligature does not contra-indicate the operation; such branch should be also tied.

Pulsatile Pleurisy.—Dr. Comby (*Arch. de Medicine*) calls attention to the semeiological value of thoracic pulsation in pleurisy. In pleurisies of the left side, there are pulsations synchronous with the beating of the heart. These occupy chiefly the lower part of the thorax, and are sometimes limited to a tumor, which has its seat in the thorax or the lumbar region. These thoracic pulsations are due to the transmissions of the heart-beats across the sclerosed lung to a liquid. They are only met in old *purulent pleurisies*, with retraction of the lung and fusion of that organ with the pericardium. Every pleurisy of the left side with pulsations, *pulsatile empyema*, is a *purulent pleurisy*. Pulsations indicate purulence. They have even a more extended signification; they indicate not only purulence but destruction of the lungs. It is a sign of incurability. Such is the diagnostic and prognostic value of pulsatile empyema.—*St. Louis M. and S. Jour.*

Medical Items.

Dr. Koch in his investigations of the cholera in Toulon is said to have found the same phenomena in the post-mortem examinations as in the cases which he investigated in India. The microbes were identical.=The Louisiana State Board of Health has instructed the quarantine officers at all of the quarantine stations in the State to detain all vessels coming from Toulon and Marseilles, or any other ports where cholera may exist.=A Chinese doctor in Arizona Territory was fined $100 because his diploma turned out to be a laundry list.—*New England Med. Mo.*=Charles Reade, the novelist, is credited with having named a dog Tonic, because it was a mixture of bark, steal and whine.—*Idem.*=The true use of a porous plaster according to a Milwaukee druggist, is "to retain the back in its proper place, and let the pain crawl out through the holes. *Med. Record.*=According to the *Med. Record* a Californian, calling himself Dr. C. C. O'Donnell, has secured two Chinese lepers which he proposes to take East and exhibit in the interest of anti-Chinese immigration. He claims there are between two hundred and two hundred and fifty lepers in San Francisco already, and that the disease is increasing.=The Faculty for a Medical College at Fort Worth, Texas, has been organized, and a board of trustees of leading citizens appointed. A charter will be obtained in July.—*Texas Courier of Med.*=*The Chicago Medical Journal and Examiner*, one of the best known and most influential of the Western medical monthlies comes to us this month much improved in appearance, and in an entirely new dress. Its editorial staff contains the names of Drs. James Nevins Hyde, W. W. Jaggard and Harold N. Moyer.=The Congress of German Naturalists and Physicians will be held at Magdeburg, September 18 to 23, 1884.=The Hospital Saturday and Sunday Funds in England amount to about a million and a quarter dollars annually.=A young lady, aged 23 years, the daughter of a physician, died recently in Lancashire, England, from the effects of bichloride of methylene, administered as an anæsthetic for a slight surgical operation.=A public subscription has been started in France for the purpose of erecting a monument to the memory of M. Dumas.=Orthoxysulphite of phenil is proposed by M. Laborde as a substitute for carbolic acid. It is said not to be poisonous, and to be much less odorous than carbolic acid, whilst it equals it as a preventive of putrefaction and fermentation.=The young lady from Vassar does not speak of a clammy sweat, but of a bivalvular transpiration.—*Puck.*=Dr. J. Edgar Chancellor, formerly Demonstrator of Anatomy in the Medical Department of the University of Virginia, has been elected to the chair of Gynæcology and Histology in the University of Florida.=Sir William Gull, when a boy, was engaged to sweep out the surgery and dispensary of Guy's Hospital, of which he later became the consulting physician. He acquired the largest fashionable practice of any physician in Europe.—*Amer. Druggist.*=When symptoms of strangulated hernia exist, the slightest fullness and tenderness in one groin over either of the rings, is a sufficient localizing indication to warrant operation.—(*Roberts.*)="Why, Cousin Charlie, what are you doing here? I suppose I must call you doctor now, and how are the patients, by the way?" "I don't know how they are by the way. I know none of them ever get as far as my office."—*Life.*=The New York Board of Health has discharged its corps of experts, engaged to examine into adulterations in food and drugs, owing to lack of funds. It is probable that there is no lack of funds among those interested in thwarting the purposes of the corps.—*Louisville Med. News.*

CHANGES IN THE MEDICAL CORPS OF THE U. S. NAVY during the week ending, July 19, 1884:

Med cal Director A. L. Gihon ordered as member of Board of Inspection.

Passed Assistant Surgeon R. C. Persons ordered to U. S. S. "Saratoga."

Passed Assistant Surgeon C. A. Seigfried detached from U. S. S. "Saratoga." Ordered to Naval Hospital, Brooklyn.

Assistant Surgeon J. S. Sayre ordered to U. S. S. "Independence."

CHANGES IN THE STATIONS AND DUTIES OF THE OFFICERS SERVING IN THE MEDICAL DEPARTMENT U. S. ARMY, from July 15th, 1884, to July 21st, 1884:

Wright, J, P., Major and Surgeon, assigned to duty as Post Surgeon, San Antonio, Texas.

Hartsuff, Albert, Major and Surgeon, leave of absence extended one month.

McElderry, Henry, Captain and Assistant Surgeon, from Department of the Platte to Department of the East.

Ewen, Clarence, Captain and Assistant Surgeon, assigned to duty as Post Surgeon, Fort Sidney, Nebraska.

Elbrey, F. W. Captain and Assistant Surgeon, leave of absence still further extended six months on surgeon's certificate of disability.

Strong, Norton, First Lieutenant and Assistant Surgeon, granted leave of absence for two months, to take effect when relieved from duty in Department of the Platte.

Wakeman, Wm. J., First Lieutenant and Assistant Surgeon, relieved from duty at Fort D. A. Russell, Wyo., and assigned to duty as Port Surgeon, Fort Washakie, Wyo., relieving Assistant Surgeon Norton Strong.

APPOINTMENT.

Charles B. Ewing to be Assistant Surgeon, with the rank of First Lieutenant, July 5th, 1884, vice Middleton, promoted.

Original Papers.

HOW CAN PHYSICIANS AID IN ELEVATING THE PROFESSION OF PHARMACY.*

BY F. E. STEWART, M. D., PH. G.

The colleges of pharmacy, both at home and abroad, teach that pharmacy is a profession, and it is the wish of all true lovers of the pharmaceutic art, to elevate the practice of pharmacy to the dignity of a profession, equal in rights and privileges with the medical profession, with which it is closely associated in common interest. The physician and pharmacist are mutually interested in the study of drugs, the latter for the sake of supplying the demands of the former. In supplying the demands of a rational therapeutics, pharmacy must find her advancement both as a science and an art. In the study of drugs the pharmacist and physician should meet, and should consult as to the best way of preparing them. On the results of this study and consultation, a literature should be founded, which would constitute the joint contribution of the two professions to science. This science should represent the knowledge of drugs, their preparation and their application to the treatment of the sick; in other words, should comprise under one head materia medica, pharmacy and therapeutics. A name should be given to this science. It should be called pharmacology, or the science of drugs. These three branches have been classed under this general head in the past, and are now by several writers. One well-known writer defines pharmacy as the science of preparing medicines, therapeutics as the science of applying medicine to the cure of disease, materia medica as the collection of substances employed in medicine, and pharmacology as the general term employed to embrace these three divisions. An able German writer says that "pharmacology in its widest scope embraces the study of drugs from all possible points of view, and the information thereby acquired may be useful under the most diverse conditions: to the physician, to enable the recognition and proper treatment of cases of poisoning, or to permit of the use of drugs for therapeutic purposes; to the public, to permit the avoidance of noxious substances; to the physiologist and pathologist, to enable the application of information derived from the study of the action of poisons to the advancement of their sciences."

In my little monograph, published in 1882, and entitled "An Old System and a New Science," I have formulated this classification in the following language:

"Pharmacology is the science of drugs. It professes to teach what is already known or may be learned concerning drugs in the forms of exact observation, precise definition, fixed terminology, classified arrangement and rational explanation. This science, therefore, embraces in classified forms, materia medica, or the substances employed in medicine, pharmacy, or the preparation of medicine, and therapeutics, or the application of medicine to the cure of disease."

In other words, "the science of pharmacology includes knowledge of botany, agriculture, history, chemistry, microscopy, toxicology, pharmacy, physiology and therapeutics. A knowledge of botany is required to identify, and properly classify, medicinal plants; a knowledge of agriculture to understand their cultivation; a knowledge of history to compare them with each other with regard to their relative importance as remedial agents; a knowledge of chemistry to investigate their active principles; a knowledge of microscopy to determine their structure, and for the purpose of identifying drugs, and preventing adulteration and substitution; a knowledge of toxicology to determine their properties as poisons, a knowledgy of pharmacy to prepare them aright; a knowledge of physiology to determine their physiological actions; and a knowledge of therapeutics to ascertain their therapeutic properties. This knowledge, classified into the forms of science, and protected by a definite, changeless nomenclature; constitutes pharmacology of the science of drugs."*

To promote progress in this science, I believe that the practice of pharmacy should be elevated to the dignity of a liberal profession, like law, theology and medicine, and that the pharmacist and physician should unite in the study of drugs; that the pharmacist should practice pharmacy in the same manner as the physician practices therapeutics—to make a living; and that both should gain reputation and professional position by scientific work in their respective fields, and the contribution of the same to the literature of the profession. This I believe, in opposition to the commonly accepted belief that pharmacy is a trade.

A liberal profession is distinguished from what is called a trade by the ideal expressed by the word "liberal." Liberal, in this connection, means philanthropic—the service of mankind. The ethics of a liberal profession demand as the first thing a service to humanity, and especially a service to the profession.

*Read before the Philadelphia County Medical Society, June 25, 1884.

*This definition of what is necessary to constitute a science is drawn from Porter's Psychology.

Anything that has a tendency to injure the cause of humanity, or to deprive the profession of benefit, is considered highly unprofessional. It is the duty of a professional man to publish his discoveries for the benefit of humanity and the profession. To keep the knowledge of a discovery secret for the purpose of making money, is considered a disgrace. A trade, on the contrary, is supposed to be run on no such liberal policy. What it discovers it appropriates for money-making purposes. But a trade cannot appeal for recognition as a liberal profession. But a distinction should be made, both in the case of the pharmacist and the physician, between the man who makes money his god and sacrifices the professional ideal on the altar of selfishness, and the unselfish professional man who finds his highest pleasure in the service of science, his profession, and the cause of humanity. The latter should be rewarded in proportion to his service; the former condemned.

We have in the field of pharmacy at the present time, the retail pharmacist and the manufacturer. The former, consists of the individual pharmacist controlling his own business, and the latter comprises a collection of individuals, often a combination of pharmacists and business men, the business men controlling the policy of the house. It is apparent that the former should be held responsible as an individual, while the latter is responsible as a firm. Both must be cut and trimmed to fit the professional ideal, and at the same time the professional ideal must be modified to meet the requirements necessitated by dealing with these two factors in the pharmaceutical world. We have to consider, therefore, the ideal retail pharmacist and the ideal manufacturing house. Both should be animated with a professional and scientific spirit; both should practice pharmacy and make money by so doing; and both should gain position and reputation by the amount of work done for the benefit of science and their profession.

Possibly we can get at a better understanding of these two ideals, and the distinction that exists between them as applied to the retail druggist and manufacturing house, by considering the fields of science in which they should work. It will be conceded a wise policy that limits the practice of pharmacy to the educated and licensed pharmacist, and protects him in his position by law. It will also be conceded that the educated pharmacist who practises his art in a scientific and professional spirit, has a right to be jealous of this protection. And the same thing applies to the practice of therapeutics. No physician will concede that any one has a right to practice therapeutics without thorough training in the knowledge of disease and its treatment, and he is jealous, and rightly so, of the right that he has gained by so much hard work and self-denial. The physician, therefore, resents any encroachment on his field of therapeutics, on the part of the pharmacist, and the pharmacist resents the existence of the manufacturing houses as an encroachment on his field by business men neither educated in drugs or their preparation. And a like argument is made with regard to the scientific field, and both professions say what right have the manufacturing houses to do scientific work. But the manufacturing houses exist; have, on the whole, done much for the advancement of pharmacy, and form a very important element in the solution of this problem. Furthermore, one of the manufacturing houses has as its head a physician of high professional standing and scientific reputation; another employs a dozen or more educated physicians and pharmacists, and most of them have in their employ one or more representatives of the medical and pharmaceutical professions. Why, then, should not these houses, if they take a professional and scientific stand, be admitted to the ranks of scientific and professional men in their capacity as firms?* Why should they not do scientific work? Why should they not make money by the practice of pharmacy at the same time?

In formulating the ideal of the scientific and professional pharmacist, I can do no better than quote an answer to an editorial in the *Therapeutic Gazette* for March, 1884, entitled, "Shall we have a Profession of Pharmacy?" by a pharmacist of high reputation.

"But pharmacy to advance to the position of a profession must do something on the positive side. To become a science pharmacy must have a literature, as you have said; and while I hold that it has one now, this, however, is restricted to pharmacists alone, and at no time becomes such a portion of medical science as to receive the attention of medical men. Thus we have in our medical colleges no department worth considering, where pharmacy is taught or even demonstrated. The branch of materia medica and therapeutics deserves no longer the title of the former, for the knowledge of drugs, their character and preparation, has long since been left out of medical education; so much is the latter the case that the physician of to-day knows little of what he is prescribing, nor could he at any time distinguish good from bad, or judge by inspection or analysis of the quality of his medicines; scarcely, if at all, does he indeed

*Not directly as firms, but indirectly through a scientific department of one or more professional and scientific men connected therewith, as explained further on; but the firms held accountable to science and the profession.

know the strength of regular galenical preparations. The medical profession depends in this upon pharmacy, and yet are unwilling to give pharmacy a recognition in its proper place. In order to raise himself to a professional standard that may be accepted by the medical profession, the pharmacist must do scientific work and publish his results in medical literature. Each pharmacist should thus endeavor to contribute something to medical knowledge in his department of medical science, and by so doing he will receive the reward of professional position, and elevate himself beyond the tradesman and shopkeeper. The preparation of medicine must depend upon therapeutics, and the pharmacist who prepares medicine in the best manner to meet therapeutic demands, informing physicians of the fact through the medium of a carefully written scientific article concerning such a medicine, published where it will meet the medical eye, will surely receive credit, and create a demand for his goods thereby, for the physician will naturally believe that the pharmacist who knows the most about a preparation, is the one most capable of preparing it.

"To sum up, therefore, it seems to me that the elevation of pharmacy to the position of a profession depends upon the following requirements:

"First. The abrogation of the proprietary-medicine trade in all its forms.

"Second. Scientific work and literature on the part of the pharmacist. To the latter it may be urged, however, that pharmacists have already done, and are still doing, a great deal of scientific work which has appeared in pharmaceutical journals. This, no doubt, is true; but first of all, scientific work of that kind is not general amongst pharmacists, and is usually limited to teachers and students The practical pharmacist usually loses sight of it in the pursuance of his trade vocation.

"Again, such work as has been done, has been of little service to medicine, buried as it is in pharmaceutical literature, not even extensively read by pharmacists, and totally ignored by the medical profession. I would, therefore, suggest that a distinction be made, and a final line of demarkation be drawn at this point, and that upon the one side of that line be placed those who practice pharmacy as a profession, and on the other those who practice it as a trade. Let the former purge their establishments of proprietary medicines entirely, and devote themselves to scientific work, and the cultivation of the practice of pharmacy. As the word pharmacology has been chosen to represent the science of drugs, let professional pharmacists be distinguished by the title pharmacologists, as suggested by Dr. F. E. Stewart. Let pharmacy be recognized as an essential branch of medicine, to be taught in its full extent in medical schools; let pharmaceutical literature be allowed a place with therapeutics in medical journals; and also let the scientific pharmacist be accorded an honorable place in medical discussions, many of which often smack of absurdities from the simple want of knowledge on this subject, so essential in the treatment of disease. The adoption of this course would be to raise up a profession of scientific men devoted to the practice of pharmacy as a profession, and, as they would have the interests of their science at heart, they would have a professional and scientific spirit. Professional pharmacists bound by medical ethics would not be guilty of unprofessional conduct, so that the criticisms made on that score, referred to in your editorial, will not apply to them."

The manufacturing houses, however, employing as they do both physicians and pharmacists, have a much wider field for work than the retailer. It is from them, therefore, that we ought to expect the most rapid progress in the science of drugs. Each manufacturing house, of the sort I have described, should constitute itself into a laboratory of pharmacology, devoted to the promotion of progress in the knowledge of drugs, their preparation and application to disease. In other words, these houses should do scientific work on the materia medica, and make a living by the practice of pharmacy, and carry out the professional ideal.

To carry out this laudable scheme, the manufacturing houses should utterly repudiate the proprietary-medicine system in all its forms, drop all secrecy, and throw open their laboratories to professional inspection, publish their formulæ, and stand on the broad ground of scientific and professional pharmacy. They should in no way allow their scientific department to be subsidized by their commercial interests, but in all things should serve science first, commerce afterwards. They should practice pharmacy with the same liberal and beneficent spirit as the true physician practices therapeutics, and gain a living thereby; and should be rewarded by scientific reputation and professional position in proportion to their contributions to scientific literature. Such a policy would benefit science, the profession of pharmacy and medicine, and the cause of humanity.

I know that some argue that it is not permissible for a commercial house to do scientific work on the drugs or preparations in which they are interested, for the reason that scientific work should be done *pro bono publico*, and that such a system would be manipulated for commercial ends. They quote, in proof of this, the desire of quinine manufacturers to

keep the duty on quinine, for the sake of protecting their business and affording a monopoly. In this, again, will be recognized the ideal of professional beneficence that I have already described, and the belief that wherever a commercial connection can be traced in any plan, beneficence will be sacrificed to selfishness, for the sake of making money. To this I would answer, there is a great deal of difference between the commercial question of duty on quinine and the question of scientific work on drugs. It may be possible for great monetary interests to unite for the purpose of cornering valuable drugs by the tariff or by other means, but this is merely a commercial question and has no bearing that I can see on the other. There have been corners in opium, quinine, and other staple articles, but that is no reason why scientific work should not be done on them. Scientific work on a valuable drug only increases interest in it, and enhances its value, thus making it all the more desirable for other houses to compete in the market, thereby cheapening the product; benefiting commerce, by adding to the industries of the country; promoting progress in science, by fresh knowledge, giving us new and valuable therapeutic agents, and benefiting the cause of humanity by all these. I look at any house, who, animated by a professional and scientific spirit, throw wide open the doors of their laboratory, publish their formulæ, and devote themselves to the exploration of scientific fields for the benefit of science, so that they may furnish us with new and valuable products from nature's storehouse, as worthy the highest praise and commendation. And the facts bear me out, for I have taken occasion to study the matter carefully. Let me quote from a letter received in answer to one of mine, recently written, to a large manufacturing house, who, in addition to their manufacture of a full line of pharmaceutical preparations, are well known to the profession through their enterprise in the introduction of new drugs. They say:

"It would appear that our relation to the introduction of new remedies is quite generally misunderstood by the medical profession. The impression prevails that the profit, from the sale of such drugs, is sufficient to tempt the introducer to make such representations touching their properties as will stimulate their sale. That you may correctly understand our position in this matter, we take the liberty of stating it, at some length, as follows:

"New remedies are introduced by us to the medical profession in a sincere desire to improve the materia medica. The direct benefit, from a business point of view, which we hope to achieve is such recognition of our services to science and humanity as may attract attention to our regular business as manufacturers of legitimate pharmaceutical preparations. Such being our position, we are, naturally, as a matter of sound business policy (if you will give us credit for no higher motive), anxious to obtain and publish, rather than to conceal, all possible knowledge with regard to the botany, chemistry, microscopy, physiology, and therapeutics of each particular drug which we introduce. Drugs are introduced under their botanical names, so far as our abilities, through the assistance of our scientific friends, will permit. We solicit, and by no means shun, the co-operation of scientists in physiological and therapeutical investigations. We publish favorable or unfavorable reports as they are submitted, and without mutilation or alteration. We do not solicit or publish testimonials as such, to the value of our preparation of a drug, but, as far as possible, secure articles written from a purely scientific standpoint covering the properties of the drug itself. Our endeavor is, by means of our systematized correspondence, capital and business enterprise, to afford to the profession facilities for testing agents hitherto not obtainable. In order to fix the value of such agents, we earnestly ask the co-operation of the medical profession; and only accurate and reliable information is asked, for it must be very apparent to any one who will give the matter a moment's consideration, that we can have no possible interest in introducing a drug which will not bear out in practice the claims made for it by its introducers. The sooner we learn the real value of a drug the better it is for us individually. If it has no such merit as may warrant its permanent addition to the materia medica, we are interested in discovering the fact early, so that our expense may be confined, as nearly as may be, to the original cost of obtaining our supply of it.

"It has been assumed, and is frequently so stated to us, that the introduction of new remedies is an exceedingly profitable branch of our business. We are willing to admit that it might be made such were we to control, in any way, the market, with the profession and public alike, for drugs which have been proved to be valuable over the existing agents in the materia medica. Such control, we have, however, never desired or attempted, and, except in a few isolated cases, our activity in the introduction of new remedies has secured us no advantage in the market. From the very nature of the case those drugs best adapted to our purpose are such as have been hitherto unknown, and which have not entered into the ordinary channels of commerce. To secure such we are necessarily compelled to send our own agents to the countries or districts where the drugs are indigenous for the purpose of

collecting our own supplies. The next step must be to create a demand, and to this end we aim to publish all procurable testimony upon the subject, from legitimate sources, covering the botanical, chemical, physiological and therapeutic features and properties of the drug. We then isolate such active principles as it may contain, and make pharmaceutical preparations of the drug, according to recognized standards. These we distribute, free of cost, to such physiological experimenters and experimental therapeutists as will undertake to test them. Our great drawback in this branch of the work has been in the backwardness of the profession to co-operate with us. Having in this manner secured proper data for the guidance of the general practitioner to the further employment of the drug, we place at the command of the medical profession, its eleemosynary institutions, and its individual members, for experimental purposes, such simple fluid extract as best presents the properties of the drug. The expense involved in this donation and distribution of material is little known and less appreciated by the receivers, for they regard the amount only that is indicated in their individual instances. We are now ready to receive and publish all obtainable facts, of a legitimate nature, bearing on the value of the drug in practical therapeutics, and all information thus gathered is subsequently issued through the medium of our 'Working Bulletins.' This collection and publication of material involves further very considerable outlay of capital, which, owing to the inertia of the medical profession, and its tardiness to improve the opportunities afforded them, is necessarily idle for a lengthy period; sales of the drug are made slowly, and it is often years before we receive a return for our investment. Long before any possible profits are assured, the drug, by means of our effort and the enterprise of our competitors in appropriating the fruits thereof, becomes an ordinary article of commerce upon the market, where the price of the crude drug is much lower than its original cost to us. Pharmaceutical preparations of it are offered by competitors at less than our prices, and in some instances (such is one of the peculiarities of competition), the prices are cut so low as to remove all the margin of profit, even to those who manufacture from the cheaper supplies of the crude drug. The only protection that we have in such cases is in the appreciation by the profession of the undoubted genuineness of the drug which we have to offer, and its recognition of the fact that our experience, and our study of the drug, have qualified us for making the best representative pharmaceutical preparation. Among the drugs which we have introduced, those which have borne us commensurate profitable return may be counted upon the fingers of one hand, and, even in the case of these profitable ventures, we have been burdened with expense, annoying effort and scientific labor, which are in their inherent nature very discouraging to business enterprise. The difficulties which are inseparable from this line of work find their compensation only in the benefit to our reputation as workers for the benefit of science and humanity, and the indirect effect of this enterprise upon our general business. We hold the personal ends which we have in view in this work are as legitimate, and in themselves as commendable, as are those which stimulate the more strictly professional worker.

"In the case of several new drugs which we have introduced, the cost of the crude material laid down in our laboratory, has been as high as from 75c. to $7.00 a pound. Subsequent to the outlay which we incurred in our process of introduction, and the creation of a market therefor, as above stated, native drug-gatherers have placed them upon the American market at a tenth of its cost to us. Eucalyptus globulus, first brought before the medical profession of America by ourselves, cost us originally in the New York market $1.75 in gold. It can now be purchased in the open market in quantity at from seven to ten cents per lb. Jamaica dogwood cost us through our own agency in collection, at least, 75 cents per lb. This drug has been offered upon the New York market at six cents per lb. It is true that the article so offered has been of inferior quality, and frequently the bark of the tree, instead of the bark of the root, is sold. Nevertheless, it finds a market, and we necessarily suffer in competition. The same may be said of Manaca (Franciscea uniflora), and other drugs which we have not the room here to enumerate.

"Without canvassing this subject further, we would express our surprise that the medical profession do not more readily take advantage of our willingness to co-operate with them. Can it be that their backwardness is due to an impression that we are actuated by the same policy which induces the introduction and sale of the so-called trade-mark pharmaceutical specialities—by which we mean a compound of drugs requiring no extraordinary ability as to conception or preparation, protected by trade-mark or patent, or introduced to the profession under concealed or misrepresented formulas? We have certain knowledge that such specialties can be and have been marketed to an enormous extent, and with great pecuniary profit. Comparatively little labor, advertising expense or business ability is involved in their manufacture and introduction. When the introduction and sale

of a protected nostrum with assured profits, is contrasted with the labor and expense and unprofitable results involved in the introduction of an absolutely new remedy from the storehouse of nature, there must, it would seem to us, be a distinction made by scientific men, between the quality and nature of the two kinds of work.

"Our laboratory is open at all times to inspection by those seeking scientific or technical information for legitimate purposes. We publish working formulas and all possible information with regard to our products. We do not seek the aid of the government, in any form, for our protection, except in so far as our name itself as attached to such preparations, should be protected. We have published our platform broadcast in the medical press of this country, and we invite the strictest investigation of our methods by the medical profession, with whom it is our business, as pharmacists, to co-operate."

But it must not be forgotten that pharmacy is a trade as well as a profession, and that certain commercial elements of the greatest importance enter into the discussion of this subject. The first element is that much-vexed question of supply and demand. The demand, which it is the business of the pharmacist to supply, comes from two sources—the medical profession and the public—and it is an important question how far the pharmacist is to cater to the demands of his patrons. First, how far shall he cater to the demands of the medical profession. The demands of the medical profession upon the pharmacist can be seen by consulting his prescription-files. It will be found that the profession demand crude drugs, pharmaceutical preparations, such as fluid extracts, syrups, tinctures, etc., home-made and made by the large manufacturing houses; likewise proprietary pharmaceuticals, characterized by the now notorious *ine* and *ia* terminations, such as lactopeptine, cosmoline, bromidia, etc., etc.; also proprietary medicines advertised to the people; and the so-called "patent" medicines, such as Ayer's Pills, Jayne's Expectorant, and the like. All of these things are prescribed by the medical profession, as any pharmacist will tell you. Shall the pharmacist keep everything that the doctor prescribes? If so, behold the list. Without answering this question, let me point out the effect of these various demands on the profession of pharmacy. As long as the demand of the medical profession is limited to crude crugs and the preparation of them made by the retail pharmacist, the latter is encouraged to select and prepare his own medicine; and if he does this with a professional and scientific spirit, and eschews everything unprofessional and unscientific, the professional ideal is satisfied, and professional pharmacy elevated thereby. But it is simply impossible for the retail pharmacist at large to obtain a living and carry out this pure ideal, for the simple reason that there is not enough demand for this kind of work for him to get a living out of it. Throwing aside the question of competition, which is a very important factor here, it is true that the medical profession have taken so largely to prescribing ready-made pharmaceuticals and special brands of well-known pharmaceutical preparations, such as ergot, for example, each physician having his favorite brand, that the selection and preparation of medicine are gradually being taken from the hands of the retail pharmacist, and he is becoming a mere dealer in ready-made goods. Of course, just to the extent that this becomes the case, the ideal of every pharmacist or professional man engaged in the selection, preparation and dispensing of medicines of his own manufacture, is lost. But it is a fact that the demand for ready-made compounds and special brands of manufacture are on the increase. Why is this? Is it a question of the survival of the fittest between the old system and the new, or is the medical profession so ignorant of pharmacy that it does not know the difference? Dropping for a moment the question of ready-made compounds, which are undoubtedly used by the physician for convenience in prescribing, let us consider the question of special brands of regular U. S. P. preparations. Should the specifying of special brands of well-known preparations be encouraged? I believe that it should, and I will give my reasons in detail, for this is a very important subject, and one that is attracting no little attention at the present time.

It is our duty as physicians to use the best drugs, or preparations of them, that can be procured, and I hold that the pharmacist who can supply the best should be patronized. He should be encouraged in every legitimate way, and what more legitimate way than to specify his brand of manufacture, in preference to permitting prescriptions to be filled with inferior articles. By carefully studying this subject for the purpose of specifying the best brand of an article, a rivalry is engendered to see who will make the best. This is a most legitimate competition, and I claim that nothing would more quickly clean the market of frauds than to throw pharmacy open to legitimate competition of this kind, and for every physician to specify the brand which proves itself the best by careful examination of its composition, as set forth by the pharmacist, and clinical test of its merits. Nothing would have a more wholesome effect on professional and scientific pharmacy than this. Specify on your prescription,

but do it justly, after careful study of the merits of the preparation. The demands of the physician, then, for different brands of articles in common use will be productive of much good. I know it is urged that the specifying of various brands necessitates the apothecary's carrying a large variety of brands of the same article. But this is not the affair of the physician. It is his duty, to himself and the public, to see to it that his patients get the best medicine the market affords; and the pharmacist has the remedy in his own hands, by improving on all the brands he has in stock, and convincing his medical patrons that his preparation is as good, or better.

But these remarks do not apply to proprietary pharmaceuticals. I have nothing but condemnation for the whole system. Nothing has done more to injure professional pharmacy than the demand created by the medical profession for them, which the pharmacist has been obliged to supply. Aside from the fact that before the law they stand in the same position as the out-and-out so-called "patent" medicines, and by sanctioning them by our prescriptions, we make the "patent" medicine business respectable, their proprietary and secret nature make them objectionable. They are objectionable from an ethical point of view, for the reason that every time we prescribe them we break a direct law of the code, expressly forbidding it; they are objectionable from a scientific point of view, because it is only a question of time when the art of their manufacture will be lost for lack of publication, and their names no longer represent anything in existence, to the detriment of medical literature employing them. They are objectionable for the reason that competition in their manufacture is withheld from the pharmaceutical profession at large, the result being that the system affords no rivalry, to see who will produce the best brand, but offers a temptation to the manufacturer to put out an inferior article after the demand is once created, for the sake of making a greater profit in its sale. The demand for proprietary pharmaceuticals, therefore, on the part of the medical profession, is ruinous to professional and scientific pharmacy, and ought not to be encouraged.

And what has been said with regard to proprietary pharmaceuticals applies with still greater force to the proprietary medicines (the so-called "patent" medicines) advertised to the public. I am ashamed to own that it is necessary to enumerate this class of preparations in the demand created by the medical profession.

There is another and a varied demand created by the medical profession that should be taken into account, and a very important thing it is, especially to the large manufacturers and wholesale druggists. It is this demand for drugs and preparations of unlimited variety, caused by a difference of opinion upon the part of the medical profession, concerning the therapeutic value of such drugs and preparations. Take a large house, for example, whose market is the whole world. One country, or locality, employs a drug which is wholly unemployed, if not unknown, in another country or locality. I hold that it is not the pharmacist's prerogative to be a judge between physicians concerning differences in therapeutic opinion, as he is not instructed in disease or its treatment. Here, certainly, he is forced to take the commercial stand and supply what is demanded, leaving the profession to decide on the merits and demerits of the article from a therapeutic point of view.

I have suggested above that each manufacturing house should constitute itself into a pharmaceutical laboratory for the study of the science of drugs, so that its products shall represent the results of scientific research in the various branches of that science. It is asked, how are you to harmonize the scientific and professional ideal with the commercial ideal just described? In other words, how is a manufacturing house, or a retail pharmacist, to supply his demands as a merchant, and satisfy his conscience as a professional man at the same time? I answer for both the retail pharmacist and the manufacturer: I think that any fair-minded man will admit that no one has the moral right to manufacture and sell an article detrimental to the interests of the public, or indorse a system injurious to the public welfare. If he believe the proprietary-medicine system a public evil, he certainly cannot manufacture and sell proprietary medicines conscientiously. It will also be admitted that a man who is endowed with a scientific and professional spirit will not lend his encouragement to an unscientific system, or one that is injurious to his profession. The proprietary-medicine system is certainly unscientific, and entirely opposed to the professional ideal. It, therefore, follows that the retail pharmacist, or manufacturing house, making any claims to represent professional and scientific pharmacy, will not endorse the proprietary system in any of its forms, or take a course to injure either the profession of pharmacy which it represents, or the profession of medicine, to which it caters,

and of which it claims to be a friend. This is as far as the pharmaceutical profession can go. As I before said, questions of therapeutic differences must be settled by the physician, not the pharmacist.

To free the scientific ideals from their perplexing commercial and ethical complications as much as possible, I have suggested the idea of a scientific department of experts, in connection with the large manufacturing houses who practice this art as above described. These houses can then be divided into two departments, commercial and scientific, the commercial department conducted in a manner in nowise incompatible with the true interests of science, but not claiming to be authoritative, and the scientific department devoting itself to scientific research, and gaining an authoritative position thereby. Following this classification, the literature of such houses could bear the stamp of the commercial or scientific department, according to its emanation, the former representing the general knowledge of the drugs and preparations handled by such a house, without regard to the source of the information concerning them, and the latter the authoritative statements of the scientific department. Questions of therapeutics could then be considered by the therapeutist of the scientific department and the house relieved of the charge of teaching therapeutics.

Another very important point to be considered in connection with this question of supply and demand is the introduction of new drugs. A physician in some distant part of the country writes an article concerning some new therapeutic agent, which he extols very highly in the treatment of some particular disease. This at once creates a demand for the article, which the various manufacturing houses, acting in their commercial capacity, seek to supply. Shall the commercial house be held responsible if the drug turns out to be a humbug? I answer no. It is a question of therapeutics for the medical profession, not the pharmacist, to decide. Here, however, the scientific department alluded to could be of the greatest service to the profession. The commercial department, from the very nature of the case, cannot wait for extended scientific research. The demand is there and must be supplied. It is now the prerogative of the scientific department to take it up for investigation and report, and such a report may be received as authoritative.

A little study of this question of supply and demand will indicate to the physician how he can aid in elevating the profession of pharmacy. Indeed, much is in his hands, and he is, in great measure, responsible for the rise or fall of pharmacy as a profession, and when the importance of this branch of medical science is taken into consideration, how great the responsibility devolving upon him in this connection.

In this connection I would beg your attention to a few suggestions which I have made in relation to this subject of supply and demand, for the purpose of enabling the pharmacist, especially as represented by the large manufacturing houses, to supply the demand without injury to scientific and professional pharmacy, and also to enable the medical profession to co-operate, by their aid, for the purpose of elevating the profession of pharmacy. I first took up the proprietary pharmaceutical system to prove it unscientific, unethical and illegal. I have already pointed out its unethical and unscientific character. With regard to its legal status, it is only necessary to state that there is no law in this country granting an exclusive monopoly of an article of commerce, but the patent law, and the patent law was designed to prevent the very abuse so objectionable in the proprietary system. The patent law was devised to promote progress in science and the arts, not to retard their development by a system of secrecy and everlasting monopoly. This it aims to do by granting to inventors of new and useful articles the exclusive right to their manufacture and sale for a limited time, in exchange for a full knowledge of their nature and art of manufacture. This knowledge is stored in the patent office and is open for public inspection and study by the public at large, so that when any one wishes to improve such an article he can study up the subject by means of the records of the patent office. By sending a small sum of money (25 cents, I think) to the patent office, any one can obtain full knowledge of the article patented. The patent system secures the publication of full knowledge of every invention patented, and thus benefits science; it affords a just protection to investors until the investment of capital in working and perfecting

the invention becomes a remunerative one and the inventor is rewarded for his labors, and the invention itself finally becomes common property, together with full knowledge of the art of its manufacture. Contrast this with the secrecy and perpetual monopoly of the so-called patent-medicine system. Contrast it again with the beneficent ideal of a liberal profession. Much may be said in favor of the correct application of the patent law to medicine, but I fail to find a single argument that will justify the proprietary-medicine abuse. It is, therefore, very essential to the progress of professional pharmacy that a clear line of demarkation should be drawn at the outset between pharmacy and the proprietary-medicine system.

(*To be Continued.*)

Society Reports.

AMERICAN OPHTHALMOLOGICAL SOCIETY.

TWENTIETH ANNUAL MEETING, HELD AT THE GRAND HOTEL, CATSKILL MOUNTAINS, NEW YORK, JULY 16TH AND 17TH, 1884.

(*Specially reported for Maryland Medical Journal.*)

WEDNESDAY, JULY 16TH. FIRST DAY—MORNING SESSION.

In the absence of the President, DR. H. D. NOYES, of New York, who is in Europe, the Society was called to order by the Vice-President, DR. W. F. NORRIS, of Philadelphia, thirty-one members being in attendance.

After the report of the Secretary and Treasurer had been received, and the usual business disposed of, the first paper, by *Dr. Hasket Derby*, of Boston, "Iridectomy in Chronic Iritis," was, in his absence, read by the Secretary. Discussion followed, and was participated in by *Dr. H. Knapp*, who thought iridectomy a very uncertain remedy in the disease under consideration, but that it was more apt to do good when there was inflammation of the ciliary body, as well as iritis.

"Cases of Restoration of the Eyelid by Transplantation of Flap without Pedicle, by Wolf's method," by *Dr. Charles S. Bull*, of New York, was the next paper presented. Three successful cases were related; in two of them the flap was taken from the forearm; in the other from the thorax. In the first case the piece of transplanted skin measured 1¾ by 1¼ in. The flaps were stitched in place by fine carbolized silk sutures, and the dressings used were goldbeaters' skin, iodoform gauze and borated cotton. Suppuration took place in two of the cases, and in one the flap looked dark, as though about to slough, when the dressings were removed upon the third day. In this case the dressings were reapplied, and two days later the flap was found adherent, only the epithelial layer having sloughed off. The lids were washed with a 2 per cent. solution of carbolic acid, and dusted with iodoform. The stitches were removed on the sixth day; suppuration soon ceased and healing was satisfactorily completed.

Dr. B. E. Fryer, of Kansas City, then read an account of "A Successful Case of Skin Flap Transplantation without Pedicle, to Cover Eyelid, after Removal of Epithelioma." He claimed that the dressings usually employed in these cases were too cumbersome. In his case he had used nothing but two thicknesses of goldbeaters' skin. When this was removed, on the eighth day, union had taken place. Three months have elapsed since, and the graft has undergone but slight contraction.

Dr. Richard H. Derby, of New York, next read a description of a "Case of Gangrene of the Lid, with Subsequent Restoration of Tissue without Plastic Operation," and exhibited photographs illustrating the progress of the case.

Discussion upon these three papers followed, and was participated in by Drs. Pooley, Prout, and Harlan, who spoke of the value of dry heat applied by means of absorbent cotton in preventing sloughing of the transplanted flap; Green, who thought Wolf right in advising against the use of sutures; Wadsworth, who had employed with good effect fine sutures introduced only through the *epithelial layer* of the flap, and others.

The next paper presented was by *Dr. Geo. C. Harlan*, of Philadelphia, "Case of Hysterical Monocular Blindness, with Mydriasis and Blepharospasm." The application of a Charcot magnet always produced a marked improvement in this case; but the same improvement, even to the disappearance of the mydriasis, took place when an imitation wooden magnet was substituted for the real one.

Dr. H. Knapp, of New York, read a description of two cases of "Neuro-Retinitis with Fulminant Blindness." The first case occurred in a man forty years of age. Headache and nausea came on during the night, and the next morning blindness was complete, with the ophthalmoscopic picture of choked discs. There was temporary suppression of urine, but no albumen or sugar was discovered. The pupils were widely dilated and immovable. Saliclylate of sodium was given in large doses. The optic nerves subsequently showed white atrophy. In the left eye blindness remained

complete, there being not even perception of light. Ten months after the attack the vision of the right eye, in which there had been before but doubtful perception of light, began to improve, and the patient ultimately gained sufficient sight with this eye to enable him to read to the nasal side of the visual field, Snellen, No. 4.

The second case occurred in a girl, eleven years of age, who had not yet menstruated. After falling, with a child in her arms, the patient having received no hurt, but being greatly alarmed, complete blindness (loss of light perception in both eyes) came on within forty-eight hours. The pupils were immovable, but not widely dilated. There was no headache. Ophthalmoscope showed choked discs. Calomel and salicylate of sodium were given, and produced excessive purging. Rapid improvement in vision took place, and in less than six weeks it had reached $\frac{20}{XX}$ for each eye. Dr. Knapp thought the purging had been of service in this case, and should he meet with a similar case he would act upon this belief.

Dr. W. F. Norris, of Philadelphia, read the next paper, "Hereditary Atrophy of the Optic Nerves." The history of a family consisting of 22 persons, in 14 of whom this form of eye disease developed, was given. The blindness came on generally after puberty; the average age at which the neuritis (which in each instance preceded the atrophy) made its appearance was 16 years. The failure of sight began with a central scotoma. Treatment (hydrarg. bichlorid. and strychnia) was of little avail. Vision in one case improved from $\frac{6}{LX}$ to $\frac{6}{XXIV}$. Discussed by Dr. Howe.

Dr. Norris also reported "Two Cases of Orbital Tumor." The first, a myxosarcoma in a child, was twice removed by operation, but each time returned; the second, an osteoma of nine years' growth in a woman, after having produced blindness of the affected eye from optic neuritis and subsequent atrophy, was removed by the aid of a gouge and mallet, the blind eye having been first enucleated. Five months have elapsed since the operation, and as yet the growth shows no signs of returning. There was no history of syphilis.

Dr. J. A. Andrews, of Stapleton, St. Isl., read a paper upon "Jequirity." He had obtained excellent results from this remedy in the treatment of granular lids and pannus, and thought that when used with proper precautions it was a safe and efficacious agent. He recommended, especially in cases in which the cornea was but slightly affected, that a single application of a 1 per cent. solution of the jequirity should be made, and that the effect should be watched for 24 hours before further use of the remedy. Discussed by Drs. Knapp, Theobald, Norris, Howe, and by Dr. Seely, who mentioned having used jequirity in one case of scleritis with excellent effect.

Dr. Schell stated that he had found that by adding boracic acid to the jequirity solutions in the proportion of gr. jv to ʒ i, they could be kept for a long time without spoiling. Dr. Wadsworth, by adding from 1 per cent. to 2 per cent. of carbolic acid, as had been recommended, had kept solutions in good condition for several weeks, and had found them free from bacilli.

AFTERNOON SESSION.

The afternoon session was occupied in the demonstration of microscopic slides by *Dr. Adolf Alt*, of St. Louis, who showed sections from the iris of a rabbit, in the eye of which he had induced, in three days, sympathetic iritis by injecting into the opposite eye infusion of jequerity.

He thought the inflammation had probably extended to the second eye by way of the lymph space of the optic nerves.

In this connection, *Dr. Pooley* reported a case of sympathetic neuro-retinitis, cured by enucleation of the exciting eye, which he thought seemed to sustain the view that the optic nerve was the medium by which the in-inflammation reached the second eye.

Dr. Theobald called attention to the fact that the sympathetic iritis induced in the rabbit's eye by Dr. Alt had developed within three days after the injection of the jequirity into the opposite eye. True sympathetic inflammation had never been known to occur in man within so short a time after the injury of the primary eye. Usually weeks or months, and sometimes years, elapse before its development. Too much importance should not be attached to experiments upon the lower animals, such as that described by Dr. Alt. In this instance the rabbit died in convulsions within a few days after the experiment was begun, but no autopsy was made. A careful search would, perhaps, have revealed other centres of inflammation, besides the one which was especially sought for, and discovered in the opposite eye. Dr. Pooley, he thought, would find it difficult to explain how the sympathetic neuro-retinitis in his case was benefitted by the removal of the exciting eye, if it were simply the result of mechanical extension by way of the optic nerve from the one first affected. If we assume, however, that it was due to an influence transmitted through the ciliary nerves the difficulty disappears, because the elucleation of the exciting eye removes a continuously acting source of irritation.

Dr. Miller, of Providence, exhibited to the society drawings and photographs of a "New

Perimeter," devised by *Dr. E. Dyer*, of Newport, in which the fixation object plays upon a spiral wire, and by a simple contrivance is made to pass from the centre to the peripery of the visual field, or vice versa.

EVENING SESSION.

The first paper read was by *Dr. Arthur Mathewson*, of Brooklyn, "A Case Illustrating the Natural History of Cataract," which was discussed by Dr. Green.

The next paper was by *Dr. W. W. Seely*, of Cincinnati, "Experience in Refraction Cases." He spoke of the good effects which he had obtained in ciliary spasm, when associated with insufficiency of the internal recti muscles, from weak prisms with bases inwards, sometimes of not more than 1° strength.

A paper by *Dr. L. Webster Fox*, of Philadelphia, who was not present, was read by title, "Clinical History of a Case of Sympathetic Ophthalmia."

Dr. J. A. Lippincott, of Pittsburg, read a description of "Two Cases of Orbital Abscess," and *Dr. J. C. Kipp*, of Newark, an account of "Two Cases of Abscess of the Frontal Sinus."

The first of Dr. Kipp's cases terminated fatally, and the abscess was found to have invaded the ethmoid cells. In the second case there was distension of the inner wall of the orbit, and recovery took place after spontaneous discharge into the nose.

THURSDAY, JULY 17TH. SECOND DAY.

MORNING SESSION.

Dr. W. S. Little, of Philadelphia, read a description of "Two Cases of Glioma of the Retina."

Dr. Theobald referred to two cases, one still living six and a half years after the enucleation of the eye.

Dr. Mathewson thought that where fatal results did not follow the development of supposed glioma, doubt was cast upon the correctness of the diagnosis.

Dr. Knapp said there were well authenticated cases of recovery after enucleation of the eye for glioma. He has a patient now living, a man 18 years of age, from whom he removed a gliomatous eye 14 years ago.

Dr. Little read a paper by *Dr. W. Thomson*, of Philadelphia, "Partial Report of Examination of Employees of the Pennsylvania Railroad for Color Blindness."

Dr. Lucien Howe, of Buffalo, read a paper describing "Changes in the Eye after Death." Ophthalmoscopic examinations were made at short intervals as the patient was dying and after life was extinct. Four minutes after death the optic discs were pale and their outline indistinct. Thirteen minutes after, the pupils began to lose their clearness; fifteen minutes after, the corneæ showed wrinkling; and after twenty-five minutes the details of the fundus could no longer be made out with the ophthalmoscope.

Dr. George C. Harlan, of Philadelphia, read a paper upon "Congenital Swelling of the Optic Nerve. "Two cases of this peculiar condition had been observed, one in a young woman, the other in a man. The appearance of the discs was strikingly like that of optic neuritis. Dr. Risley and Dr. Mittendorf each reported similar cases.

Dr. Gustavus Hay, of Boston, read a description of "Two Cases in Which Hyperbolic Lenses were prescribed with Benefit." In one there was slight conical cornea and irregular astigmatism; in the other also there was conical cornea. Cylindrical glasses had been tried in each case with but little benefit. In the second case, a young man of 20 years, the hyperbolic lenses improved V from $\frac{12}{LXX}$ to $\frac{12}{XL}$.

Dr. O. F. Wadsworth, of Boston, reported "A Case of Myxœdema, with Atrophy of both Optic Discs."

Dr. Little stated that he had looked for eye symptoms in this disease without success.

Dr. T. R. Pooley, of New York, read a description of a case of "Acute Dacryo-Adenitis." There was severe pain, with some constitutional disturbance—fever. The onset of the inflammation was preceded by a suppurative inflammation of the opposite eye, which caused destruction of the cornea, and the author thought that the adenitis might have been due to slight septic absorption. The treatment consisted in the administration of iron and quinine and the application of hot compresses. An incision was made, but gave vent to no pus. The inflammation began to subside after two or three days, and rapidly disappeared. Traumatism and cold are the commonest causes of this affection, though it is sometimes consecutive to conjunctival or corneal inflammation.

Dr. Knapp thought inflammation of the lachrymal gland not so rare as was generally supposed. Occasionally, first one, and soon afterwards the other gland, is attacked. The prognosis is favorable, and suppuration unusual.

Dr. Miller had met with a case of acute bilateral inflammation, which had been mistaken for gonorrhœal ophthalmia.

Dr. W. F. Mittendorf, of New York, read a paper describing "Two Cases of Polycoria." In the first case the patient had lost one eye.

The remaining eye, which was myopic and astigmatic, possessed five pupils—a central one of oval shape—which was the one through which he saw, and four pyramidal shaped ones, situated in the periphery of the iris. The second case occurred in the father of the first, the polycoria being confined to one eye. The lids and choroids were normal in both cases.

Dr. Seely has seen a family in which there were five or six cases of polycoria. In these cases blindness ensued from choroiditis.

Dr. Edwin Hutchinson, of Utica, read a description of a case of "Plastic Operation for Restoration of the Upper Eyelid," and exhibited photographs of the same.

Dr. Joseph Aub, of Cincinnati, read a paper on "Removal of Foreign Bodies from the Vitreous Chamber by the Magnet." Four cases, three successful and one unsuccessful, were reported. Bradford's electro-magnet was employed.

Dr. Knapp reported a recent successful removal of a piece of iron from the vitreous chamber with the magnet, the location of the fragment not having been made out; nevertheless, he thought it wise practice to enucleate all eyes in which a foreign body is lodged in the vitreous chamber.

The question was asked whether anyone now used the permanent magnet in preference to the electro-magnet for the removal of iron from the eye. The testimony seemed to be entirely in favor of the electro-magnet, Dr. Knapp remarking that the permanent magnet was "only permanently weak and but temporarily strong." To the further question, what success had attended the employment of the magnetic needle to determine the presence of particles of iron or steel in the eye, there was but one reply—no success whatever. Even Dr. Pooley, who had proposed this method, had nothing favorable to report as to his experience with it.

Dr. S. D. Risley, of Philadelphia, reported "A Case of Compound Hypermetropic Astigmatism, which changed to Myopic Astigmatism, and in which Headaches of years Standing were relieved by Cylindrical Glasses."

After discussion upon this case, the Society went into executive session.

Upon recommendation of the Business Committee, an important amendment to the Constitution was carried, requiring that candidates for admission into the Society, in order to be eligible to election, shall have practiced ophthalmic surgery for at least five years, and have conducted themselves during this time in conformity with the ethical rules of the Society.

The annual election of officers then took place, and resulted as follows:

President—Dr. W. F. Norris, of Philadelphia.

Vice-President—Dr. Hasket Derby, of Boston.

Secretary and Treasurer—Dr. O. F. Wadsworth, of Boston.

Corresponding Secretary—D. J. S. Prout, of Brooklyn.

After which the Society adjourned.

AMERICAN OTOLOGICAL SOCIETY.

SEVENTEENTH ANNUAL MEETING, HELD AT THE GRAND HOTEL, CATSKILL MOUNTAINS, NEW YORK, JULY 15, 1884.

(*Specially reported for Md. Med. Journal.*)

MORNING SESSION.

In the absence of the President, DR. C. H. BURNETT, of Philadelphia, the Society was called to order by the Vice-President, DR. J. S. PROUT, of Brooklyn, twenty-three members being in attendance.

After the usual routine business had been dispatched, *Dr. H. Knapp*, of New York, read an interesting paper "On the Indications for Opening the Mastoid Process, based on some Recent Observations." Two cases in which obstinate inflammation of the mastoid cells was relieved by this operation were reported. He maintained that too much importance was attached to swelling, redness, and tenderness of the mastoid region as indications for the operation. All these signs might be absent, and still the opening of the mastoid be called for. In performing the operation he uses a slender chisel, with which he makes an oval opening, with its long axis vertical, 1 cm. behind the attachment of the auricle. The direction of the opening should be somewhat forwards, so as to correspond to that of the auditory canal. If this is not kept in mind, the tendency is to work too far backwards, towards the lateral sinus—the accidental opening of which is the chief danger of the operation.

Dr. J. A. Lippincott, of Pittsburg, next read a paper describing "A Case of Mastoiditis Interna Chronica, with Sclerosis—Trephining—Recovery." Persistent pain was the prominent feature in his case. Constitutional remedies, including mercury and iodide of potassium, were tried faithfully, but no relief was obtained until the mastoid was opened.

The papers of Drs. Knapp and Lippincott were discussed together.

Dr A. H. Buck agreed with Dr. Knapp that there were cases in which opening of the mastoid was demanded, though there were no external evidences of inflammation. This was especially apt to occur when there had been obliteration of the mastoid cells from condensing ostitis.

Dr. C. J. Kipp spoke of a case of mastoid disease, with optic neuritis upon the opposite side.

Dr. Samuel Theobald referred to the fact that in the cases reported by Dr. Knapp no mention had been made of the use of constitutional remedies. It would seem that there had been ample time to resort to them, and if they had been energetically employed possibly the subsequent operative interference might have been avoided.

Dr. Samuel Sexton exhibited a number of interesting photographs, showing the results of neglected mastoid disease, and urged the claims of sulphide of calcium.

Dr. S. J. Jones spoke of the necessity of careful diagnosis in these cases; and *Dr. Seely* thought the indications for opening the mastoid were not always clear. He made use of hot water applications to the mastoid region, and placed reliance in constitutional remedies.

Dr. J. A. Andrews reported a case of mastoid inflammation in which he had trephined the process with satisfactory result.

Dr. T. R. Pooley had seen optic neuritis develop upon the affected side, *after the mastoid process had been opened.*

Dr. Arthur Mathewson had not seen such favorable results from opening the mastoid as to encourage him to resort to the operation, and he did not consider the procedure as free from danger as some of the speakers seemed to regard it.

Dr. B. E. Fryer alluded to the danger of pyæmia developing after the operation.

Dr. Buck thought that in deciding whether to open the mastoid or not, we should ask ourselves the question: "is there an adequate vent for the discharge which is forming in the antrum and cells"? If there is not, we should, in accordance with the rules of surgery, operate at once, and give free vent to the pent-up matter.

The discussion was closed by *Dr. Knapp* who contended that the operation of opening the mastoid is attended with but little risk, though he believed he had upon one occasion opened the lateral sinus. No unpleasant consequences resulted, however.

Dr. A. H. Buck, of New York, next read a paper, entitled: "Remarks on the Use of Large Doses of Iodide of Sodium or Iodide of Potassium in Cases of Rapid Loss of Hearing, supposed to be due to Syphilitic Disease." The use of heroic doses of iodide of potassium in this condition had been recommended by Dr. Roosa, and he and Dr. Webster had reported favorable results from it. Dr. Buck related several cases, due to acquired syphilis, in which from three hundred to five hundred grains of iodide of potassium were given daily. In two of his cases temporary improvement took place, but with this exception his results had been negative.

Dr. Pooley reported one case successfully treated by mercury and iodide of potassium in combination.

Dr. Knapp had tried this mixed plan of treatment in two cases of sudden and complete loss of hearing from syphilis, without result in each instance.

Dr. Sexton thought much larger quantities of iodide of potassium could be introduced into the system if it were given well diluted and in frequently repeated doses.

Dr. Kipp had found no benefit from iodide of potassium in the condition under consideration.

Dr. Knapp related a case of hemiplegia, with deafness, which was greatly benefitted by large doses of the iodide of potassium.

Dr. Mathewson referred to two cases of paralysis of the external ocular muscles, cured by large doses of iodide of potassium, *after failure of the mixed treatment.*

In closing the discussion *Dr. Buck* suggested as a probable explanation of the unfavorable results obtained in his cases, that the deafness was perhaps due to the formation of gummous tumors, in the cochlea, and that though their absorption may have been brought about by the large doses of the iodide, the delicate structures of the cochlea had in the meantime been injured beyond recovery.

In hemiplegia due to the formation of similar tumors within the cranial cavity complete recovery was frequently brought about by the heroic administration of iodide of potassium, because here with the absorption of the gumma the functional activity of the brain was restored.

EVENING SESSION.

Pursuant to adjournment the Society was called to order at 8 P. M., Dr. J. S. Prout in the Chair.

After the minutes of the morning session had been read, *Dr. W. W. Seely*, of Cincinnati, read a paper on the "Treatment of Suppurative Otitis Media." His paper consisted of a recommendation of jequirity as an efficient remedy in the treatment of otorrhœa. His plan was to instil a strong infusion into the auditory canal. Considerable inflammatory reaction follows, but upon the subsidence of this the discharge from the ear ceases. He had used the remedy in a number of cases with benefit, and so far without producing any untoward results.

Dr. Seely's suggestion did not seem to be very favorably received by the Society, the general impression appearing to be that je-

quirity was not a remedy which could, with safety, be employed in the manner he had recommended.

Dr. J. J. B. Vermyne, of New Bedford, next read a paper on "Disease of the Ethmoid, the consequence of Chronic Catarrh of the Naso-Pharynx, Exophthalmos", also a report of a case of "Myxofibroma from the Basis Cranii, causing Blindness, and seven years later Complete Deafness by Destruction of the Labyrinth", which were discussed by Drs. Knapp, Kipp and Theobald.

Dr. C. J. Kipp, of Newark, read a paper upon "Tumors of the Auricle", in which he related the histories of several cases of this character which he had met with, including one of epithelioma.

The next paper, by *Dr. Lucien Howe*, of Buffalo, gave an account of a case of "Hæmatoma Auris", which the author had treated successfully by injections of the fluid ext. of ergot. At first 2 m. were injected, and after a lapse of two weeks 4 m. This affection is common to the insane, but very rare in those of sound mind. Dr. Howe's patient was sane.

Dr. Sexton believed that hæmatoma auris, or othæmatoma, was almost invariably the result of traumatism. He had seen many cases in prize fighters.

Dr. Wordsworth mentioned that in some of the ancient Grecian statues of boxers the ears were represented deformed as from this affection.

Dr. Pooley had seen double hæmatoma auris, and also detachment of both retinæ in an insane man. Both these conditions it seemed had been brought about by self-inflicted violence.

Dr. Samuel Sexton, of New York, exhibited photographs illustrating cases of "Hæmatoma Auris, Sarcoma of the Auricle, Nævus, Congenital Deformities", etc. He also exhibited casts of the teeth from cases in which the diseased condition of the teeth was supposed to have given rise to affections of the ears.

He also read by title a paper on "Peroxide of Hydrogen in Ear Diseases."

Prof. Clark, upon behalf of the Association of Teachers of the Deaf and Dumb, next addressed the Society upon the subject of "The Detection and Education of Slight Degrees of Hearing in Deaf Mutes", asking the Society for advice and suggestions on this subject. After discussion, the President, by vote of the Society, was requested to appoint a committee of three to consider the message which Prof. Clark had delivered.

This completed the bulletin, and after the exhibition of instruments by *Drs. Theobald* and *Sexton*, the Society went into executive session for the purpose of electing officers.

The officers of last year having been nominated by the business committee, were re-elected without opposition, as follows:

President, Dr. C. H. Burnett, of Philadelphia.

Vice-President, Dr. J. S. Prout, of Brooklyn.

Sec'y and Treas., Dr. J. J. B. Vermyne, of New Bedford.

After which the Society adjourned.

Editorial.

THE MAN WITH A RAILROAD SPIKE IN HIS HEAD.—On July 17, a man was found near the Baltimore and Ohio Railroad track in a dazed condition, and subsequently his wife noticed a railroad nail projecting from his skull. A physician was called, who extracted the foreign body, which had penetrated several inches into his brain. No further operative treatment seems to have been attempted, and the man died four or five days afterwards. The post-mortem examination revealed, as might have been expected, a comminuted fracture of the internal table of the skull, with the fragments pressing upon and irritating the membranes of the brain, with a consequent meningitis and cerebral abscess. No clue whatever has been found as to the perpetrator of the deed, and the Coroner's jury found that "Valentine Fritz came to his death from an iron spike or nail penetrating the skull and brain; how and when it got there is unknown to the jury."

As this case has attracted much notice from both the public and the medical profession on account of the peculiar nature of the injury, and the mystery which has enshrouded the whole transaction, a few remarks upon the proper line of treatment to be pursued in punctured fractures of the cranium may not be amiss at this time.

When one considers the peculiar structure of the brain case, with its outer tough and elastic table, and its inner vitreous or brittle lamella, it is easily understood that blows which produce but little injury to the outer table may cause a sufficient comminution of the inner plate to seriously affect the brain and its membranes. Thus a number of instances are recorded where a fracture of the internal table, with fatal result, has taken place whilst no injury has been inflicted on the outside. When a fracture of both tables has occurred, that of the inner is nearly always the most extensive. When sharp instruments, as arrows, bayonets, spears, or other penetrating objects, have gained entrance through the calvarium, the external injury may be a simple slit through the outer table and diploe, but the vitreous is almost invariably comminuted;

hence it is a rule accepted by most writers upon surgery that punctured wounds of the skull demand the application of the trephine, in order to remove the sharp and irritating spiculæ of bone which have been detached from the inner table. The trephine should be applied early before inflammation occurs, as a preventive, but it should not be neglected even if some days have elapsed and symptoms of meningitis are present. If applied sufficiently early, the prognosis is materially bettered.

Apropos of the case of Valentine Fritz, is one recorded by Erichsen, in his work on surgery. "A boy was admitted into University College Hospital on the 16th day after having been struck upon the side of the head by a large nail, which projected from a door that fell upon him. No symptoms of any kind occured until the 11th day, when he became dull and lost his appetite; on the 16th day he suddenly became drowsy and delirious, and complained of pain in the head. The pupils were dilated, the skin hot and the pulse quick." S. Cooper immediately trephined, and removed a segment of fissured bone. The boy made a prompt recovery.

Other writers also mention the liability of punctured fracture from injuries by nails in one way or another.

The writer desires to reiterate his belief that in all punctured wounds of the cranium, the immediate application of the trephine or saw is indicated, in order to remove foreign bodies, whether they be pieces of bone, bullets or what not. If they are allowed to remain the patient will almost certainly die, and if removed he may get well.

THE WARING SYSTEM IN PARIS. — A pamphlet, containing a number of plates and entitled "Première Application a Paris en 1883 de l'Assainissement suivant le Système Waring, Par Ernest Portzen, Ingenieur Civil," has just reached us. From this we learn that the Waring system has been introduced into a part of the city of Paris and is now in successful operation there.

Owing to the great variety of conditions found in the French capital, especially with reference to the inclination of its surface, the sewerage arrangements there are by no means uniform, nor does it appear that such as have been introduced have proven entirely satisfactory. It seems that even the antiquated and long condemned vaults (they also employ movable barrels) are still to be found in this foremost seat of civilization and progress.

Led by the desire of discovering some better methods, in 1882 the Prefect of the Seine instituted a technical commission composed of the most distinguished hygienists, engineers and physicians, to consider the sanitary improvement of Paris. To facilitate its labors this commission was divided into four subcommissions in each of which there were members of the municipal council of Paris. Among the several systems brought before this grand commission was that of Col. Waring, and on listening to its exposition, the commission expressed the opinion that it merited a trial in Paris. In accordance with this judgment the municipal council voted in July, 1883, the funds necessary to make trial of it in a quarter ("du Marais") presenting very difficult conditions. This quarter is in the lower portion of the city and was formerly covered with stagnant water, but has become in time closely built over. It is very populous, the streets are narrow, the sewers antiquated, and the sanitary condition has been most deplorable. The water supply of this densely populated quarter is very limited and vaults which were seldom emptied have hitherto received the human excreta of a large part of the residents. Several large public schools are located here.

We have only space to mention further the writer's conclusions. He tells us that the application of the Waring system has proven a complete success, and there has not been the least complaint of it during the five months that have intervened since its introduction. The water closets in the court-yards are no longer offensive, and their presence even would not be suspected, the pipes have never required any special cleansing, no deposit has formed in the collecting sewer at the mouth of the main, and the air in the latter, constantly renewed and passing over only recent matters moving in a rapid current of water, has no odor. So favorable is the impression produced upon the officials that the merits of the separate system will be thoroughly considered in the inquiry which is about to be made, upon the result of which will depend the plan of sewerage to be adopted for the city. The advantages on the score of economy of money and water, and the fact that the system may be employed either as the exclusive one or only as auxiliary, and perhaps a very limited complement, to the larger system of sewers, are pointed out by the author.

The results of the Paris experiment are in accordance with previous experience and what were to be expected. The conditions of the locality referred to were shocking no doubt, and any plan almost would have secured great relief. But the means employed in this case were so insignificant comparatively, the expense so moderate and the change so sudden and complete that the impression produced seems to have been a very striking and profound one, and it is not perhaps beyond the range of probability to anticipate that the triumphs of our ingenious

countryman may be consummated in the adoption of the "Waring System" by the leading city of Europe

It may be of interest to add that, according to the author, the following American cities have adopted the Waring system, viz.: Memphis, Omaha, Norfolk, Kalamazoo, Keene, Pittsfield, Buffalo, and Birmingham (Ala). A larger number still are said to be on the point of doing so. Our author, however, must have fallen into error in stating (p. 12) that "Baltimore, New York and New Orleans have consulted (se mis en rapport) Col. Waring, who is vigorously pushing his studies relative to these great cities.

Reviews, Books and Pamphlets.

A Plea for the Cure of Rupture. By JOSEPH H. WARREN, A. M., M. D. Boston: Jas. R. Osgood & Co.; 1884.

The present monograph is intended to bring more prominently to the notice of the medical profession the method of radical cure of hernia, by the subcutaneous injection of "quercus alba," which was originally devised by Dr. Heaton, of Boston. It is the second work upon hernia which has emanated from Dr. Warren in the past four years, and is in large degree simply a reiteration of his views upon this subject.

The first chapter upon "Inflammation and its relation to Tissue Repair" is contributed by Dr. C. Everett Warren, son of the author, and is a brief, but good review of the various theories of inflammation which have at different periods gained credence. It has no special connection with the "plea for the cure of hernia," as far as the reviewer can see.

Chapter II is devoted to the consideration of the "Permanent cure of Hernia by Subcutaneous Injection," in which the author describes his method of operating, and claims 90 per cent. of permanent cures. The virtue of the method depends upon the fact that a solution of white oak bark introduced subcutaneously into the inguinal canal, and thrown into the abdominal rings, causes a mild grade of inflammation, with the exudation of plastic lymph, which becoming organized contracts and firmly seals up rings and canal and so renders it impossible for a return of the hernia.

Chapter III is personal and historical, sufficiently interesting but unimportant to the general reader.

Chapter IV is a summary of a paper read before the British Medical Association, Aug. 1st., 1883, in which he advocates operative measures in those cases of hernia which were not suitable for subcutaneous injection.

Chapter V, upon trusses, is readable and instructive.

The causation of hernia is treated of in chapter VI, but does not add much to the sum total of our knowledge of the subject.

To any one who is unacquainted with the methods described, this little book will be a handy guide. R. W.

Miscellany.

PUERPERAL MASTITIS.—In the *Archiv f. Gyn.*, Bd. 22, Hft. 2, Dr. Otto Küstner discusses the question whether puerperal mastitis can ever arise from the retention of milk within a milk duct. He has observed cases that have made it certain (to himself) that mastitis can be produced in this way. For a long time he held the views promulgated by Billroth and Winkel, that mastitis is invariably a secondary process, the result of infection, that the source of infection lies in rhagades and excoriations of the nipples, and that the accompanying milk retention is caused by swelling of the glandular tissues, but his observations have now led him to change his opinion. Schroeder considers blocking of the milk or stasis to be the most frequent cause of mastitis, Küstner, on the other hand, believes that the affection only rarely arises in this way. When it does, the patient has only suckled her child a short time or not at all, and rhagades have never been present. These cases run a milder course in regard to fever, pain, and redness than those inflammations that arise from infection. The infiltration may be dispersed by pressure with the elastic bandage; in other cases the redness is circumscribed, and distinct fluctuation indicates incision. No pus, however, escapes, but milk in various stages of condensation. In such a case wide incisions, drainage, and antiseptic washings-out are unnecessary. The wound generally heals quickly under a compress, and without the accumulation of fresh secretion.—*Medical Press.*

TREATMENT OF ACUTE ABSCESS.—Prof. Smith, of the University of New York, has recently published in the *Æsculapian* his treatment of acute abscess, for which he claims in the case reported a saving of at least a month to the patient. He advises a similar procedure in carbuncles and furuncles, in fact wherever there is necrosed tissue. The method is as follows:

1. Wash well with soap and water and a flesh brush the skin at the seat of operation, then douche with a solution of corrosive sublimate 1 to 500.

2. Open the abscess with a knife treated with a solution of carbolic acid 1 to 30, the opening to be of a size to admit the nozzle of a Davidson syringe.

3. Force out the contained pus by pressure, when it ceases to flow, introduce the nozzle of the syringe, well disinfected, the edges of the wound being held firmly around it, and distend the cavity to its fullest capacity with corrosive sublimate solution, 1 to 5000.

4. Force out the injected fluid by pressure.

5. Repeat this injection as often as may be necessary until the water flows away quite undiscolored.

6. Lay the cavity open to its full extent, keeping up irrigation with a corrosive sublimate solution 1 to 2000.

7. Cut away all shreds of tissue, and scrape off gently any granulations that may be upon the living surface of the abscess by means of a curette, until a perfectly clean surface is everywhere apparent.

8. Ligature any small vessels that may be bleeding with carbolized ligatures, thorough irrigation being kept up with the corrosive sublimate solution throughout.

9. Close the wound with an uninterrupted suture, except at the most dependent point, where a small opening must be left for drainage.

10. Over the drainage opening place a disinfected sponge to absorb discharge.

11. Sprinkle the external wound and adjacent skin with iodoform; cover the wound well with folds of gauze between which iodoform is well sprinkled; over the layers of gauze apply a dressing of borated cotton, and if in a limb, secure all by a light plaster-of-Paris bandage. In the case reported, that of a man with abscess in the thigh, the result of injury, and large enough to contain a pint, and to get at which an incision two inches deep had to be made, the suffering and fever before the operation was considerable. Temperature 103° F. The day after the operation the temperature fell to normal, and did not again rise to 100°; the pain ceased entirely, the appetite returned, and he enjoyed sound and undisturbed sleep. The patient stated that from his recovery from the anæsthetic he had felt entirely well. The dressing was removed on the eighth day. The wound was entirely closed, and though there was some thickening of the tissues involved in the injury there was no tenderness. He could walk without pain or inconvenience, and there was a rapid subsidence of the swelling of the part.—*Bost. Med. and Surg. Journ.*

The Usefulness of Treating Vicious Union of Fractures.—Dr. J. B. Roberts, in an address on "Surgical Delusions," (*Polyclinic*) says: "It is a fact not sufficiently appreciated, that many cases of deformity from imperfectly treated fractures of long bones, can be remedied by refracture. Over and over again have I seen cases of grave disability and deformity cured by the application of sufficient force to break the callus uniting the misplaced fragments. Five or six months is not too late to resort to this expedient for correcting what otherwise must be a life-long evidence of defective surgical attendance.

There are many other prevalent surgical delusions, such as that bony union of transverse fractures of the patella, and of intracapsular fractures of the femoral bone cannot take place; that chronic purulent discharges from the ear do not need active treatment; that hypermetropia and hypermetropic astigmatism can be properly estimated and corrected without paralyzing the accommodation; that it is improper to perforate the nasal septum in cases of great deviation; that crooked noses are not amenable to treatment; that corneal operations and cataract extractions should be treated by cotton padding and bandages to the eyes; that fractures should be treated with carved or manufactured splints.

While an earnest advocate of conservative and of reparative surgery, I believe that, when operative surgery is demanded, it should be aggressive. Delay, indecision and inefficiency impair the value of much surgical work, and are often the legitimate result of a superstitious faith in delusive surgical dogmas."

Capsicum, not Chloral, in Delirium Tremens.—In a paper published in the *Boston Med. and Surg. Journal*, Dr. C. M. Seltzer says: Beef tea, made red-hot with red pepper, is the very best treatment for delirium tremens. A patient to whom I once administered such a dose, made so strong that I would not have dared to taste it myself, afterwards told me that it was the most refreshing and cooling drink he had ever taken. A London surgeon of the police told me that he had treated a hundred and fifty cases of delirium tremens with this remedy alone, and had not lost one. The use of chloral in these cases is criminal, and many a death certificate of "delirium tremens" ought to be "heart failure from chloral poisoning."

Is Cancer Increasing?—We have been told freqently of late that cancer is increasing, and becoming more securely planted in our midst; and, if this be so, it is an important fact, but of such terrible significance, that we must needs require the most conclusive evidence. The Registrar-General distinctly says in his last report that the increase is not a genuine increase, but is due to increased accuracy of diagnosis, which is constantly tending to increase the number of deaths registered as due to definite diseases, at the expense of more indefinite groups. Such a statement, we may assume, would not be put forth without the

sanction of Dr. William Ogle, the Superintendent of Statistics, and one of the first of living vital statisticians; we may derive some comfort from this, and may at least suspend our judgment until the publication of the decennial summary of the Registrar-General; indeed, until that is published, the materials for an accurate judgment hardly exist in a form in which they can be easily analyzed. Meanwhile, we may point out one consideration which seems to have been somewhat overlooked. Excluding sarcoma, as we may do without materially affecting the proportion which the figures bear to each other, we may say that cancer is a disease of late maturity and senility; especially is this the case with men. Now, the death-rate from all causes has materially declined, and the average expectation of life is greater at the present time than it was a quarter of a century ago. Practically, it will be safe to assume that a greater number of people live into the period of maturity and senility, and therefore a greater number live into the age when cancer is prevalent. We might expect, therefore, to find more people dying of cancer at the present time than a quarter of a century ago. There is this further hopeful feature, that a comparison of the ages at which people die now and formerly appears to show that the deaths are taking place now at a more advanced age; the percentage of deaths from cancer above 55 years of age is materially greater than it used to be. Lastly, the number of deaths among men is increasing more rapidly than among women; and about that fact there is this hopeful feature, that if we take 100 deaths from cancer among men, and 100 among women, we shall find that a far larger number of the male deaths occur after 65 than of the female deaths. About a third of the total mortality from cancer among men occurs after 65, while only a quarter of the total mortality from cancer among women occurs after that age. It would seem, therefore, that the increase in the deaths from cancer is due, in part, to an increase in the number of people who reach the cancer age, in part to an increase among men at an advanced age, and in part perhaps also to a genuine increase in the grasp of the disease over the population.—*British Med. Journal.*

Operative Delay in Acute Phlegmonous Inflammation.—No insane delusion, no Spanish Inquisitor, ever caused so many hours of excruciating physical torture as the hallucination that acute abscesses and furuncles must not be incised until pointing has occurred. All the world knows that evacuation of imprisoned pus in phlegmonous inflammations means instant relief of the agonizing pain, yet how few of the profession early and freely incise such inflammed tissues unless they first see the yellow pus under the thinned skin or feel the fluctuation of the fluid in the abscess cavity. The pain is caused by the effort of the pus and sloughing tissue to escape. Is it not, then, more rational to make a free incision to day than to wait till next week? Time and pain are both saved by early incision. If the cut is made before the pus is actually formed, so much the better. Probably no form of abscess needs early and free incision more imperatively than that under the palmar fascia. Destructive burrowing of pus is prevented by this radical procedure, which also saves the patient many days of poultices and purgatory.—*Roberts on Surgical Delusions.*

Convallaria and Digitalis.—Professor Coze, assisted by Dr. P. Simon, has completed a series of careful experiments upon the actions of *Convallaria maialis* and digitalis upon the frog's heart. He finds ("Bull. gén. de thérap.," Dec. 15, 1883) that in both cases a prolonged and strengthened systole is produced after a time, with increased arterial tension and more sustained flow of blood, the diastolic slowing of the blood-current becoming less perceptible under the influence of the medicines. He finds that this increased steadiness of the blood current is more marked when convallaria is used, although digitalis seems equally able to slow the pulse. In the cases where full doses of digitalis were given, a dangerous tendency seemed to develop for the heart to linger in an unduly prolonged systole, as if it were on the point of stopping altogether. This was not observed when convallaria was used. The author prefers convallaria, on the basis of physiological experiment, as safer and more effective in stimulating the circulation.—*N. Y. Medical Journal.*

Ovariotomy in Russia.—In the *St. Petersburger Med. Woch.* (Nos. 15-18), Dr. Krassowski tabulates all the particulars of 128 ovariotomies which he has performed during the twenty years, December, 1862, to January, 1883, and the following are the conclusions at which he arrives from a consideration of these cases, which he states have been observed with the most scrupulous exactness:—(1) Of the 128 ovariotomies (by which 178 cysts were removed, 70 were followed by recovery, and 58 by death, *i.e.*, a mortaliiy of 45 per cent. Among them 113 were complete (91 single, with 51 deaths; and 22 double, with 10 deaths); 9 incomplete with 6 deaths; and 6 mixed, *i.e.*, the cyst removed entirely on

the one side and imperfectly on the other, with 2 deaths. The mortality of the partial and mixed ovariotomies amounted to 53 per cent. (2) With respect to the *contents of the cysts*, these were colloid in 117, serous in 5, dermoid in 3, and papillomatous in 2. In 84 cases (with 41 deaths), nutrition was much impaired; while in 44 cases (with 17th deaths), this was a good condition. (3) *Age of the patients.*—While 69 of these were between 20 and 40 years of age, and 39 were between 40 and 60, only 7 were between 15 and 20. The results were more favorable between 15 and 30 (with a mortality of 35.5 per cent.), than between 30 and 50 (47 per cent.), or between 50 and 60 (61 per cent.) (4) Of the 128 patients, 33 (with 13 deaths) were virgins, 30 (with 13 deaths) childless married women, and 65 (with 32 deaths) women who had borne children. (5) In relation to *the menses*, in 20 these, under the influence of the disease, entirely stopped, in 11 they were more, and in 5 less abundant than normal, and in 9 more, and in 6 less frefrequent. In 50 they were completely normal. In 21 cases they had already become arrested at the climacteric period, and in 6 from unknown causes. After completed double ovariotomy, menstruation was never observed to recur. (6) Of these 128 ovariotomies, 24 were performed in private practice either at St. Petersburg or its vicinity, with 11 deaths or a mortality of 45.8 per cent., and 104 in hospital practice, with 47 deaths or 45 per cent. Those operations; which were performed at a little distance from St. Petersburg, were the most successful; but although in the hospital cases the greatest care was taken as to temperature and cleanliness, there were always too many persons allowed to be present, and in one of the hospitals in which 33 operations (with a mortality of 48 per cent.) were performed, the room employed was small, crowded, and lighted by petroleum. (7) The mortality, according to *season*, ranged from 66 per cent. in January, to 60 in May, 50 in November, and 70 in December; while in April, June, July and August, it varied from 0 36 to 14 and 20 per cent. (8) *Adhesions* to the *different organs.*—In executing the 128 operations there were found no adhesions in 36 cases (with a mortality of 30 per cent.) and 92 with adhesions and a mortality of 51 per cent. The adhesions were easily separable in 17 cases (with a mortality of 47 per cent.) and required cutting instruments, etc., in 75 cases, with a mortality of 52 per cent. This last category of cases is treated at considerable length, quite beyond our space. (9) The *weights* of all the cysts operated upon amounted to 3,750 lbs. apothecaries', or about 1,343 kilogrammes. The heaviest weighed 76 lbs., and the lightest 1 lb 7 oz., the mean weight of all the cysts being 27 lbs. (10) As to the influence of *prior treatment*, puncture was resorted to in 28 cases with no definite results, but the mortality was only 36 per cent. where paracentesis was performed prior to the operation. In 96 cases internal and local medicinal agents had been employed. (11) A table is given of the age of the tumor, but this is admitted to be founded upon very uncertain data. (12) *Chloroform* was used in all cases, the largest quantities administered having varied in four cases from 5 oz. to 7 oz., and the operations lasting from two to three hours. The entire amount consumed in the 128 operations amounted to 22¼ lbs., apothecaries', or 8,061 kilogrammes. Collapse ensued in two cases during, and in six afterwards; but these were restored by drawing out the tongue and hypodermic injection of tincture of musk. (13) The shortest *duration* of the operation was 25 minutes, and the longest 4½ hours; the mean duration having been 1 hour and 41 minutes. (14) A table is given of the *length of the incision* in all the cases, the inference being that this exerts no influence on the issue of the operation, this being chiefly due to the amount and nature of the adhesions. For Dr. Krassowski's observations on the management of the pedicle and dressing the wound, and the employment of drainage tubes, which are of considerable interest, we regret that we have not space.—*London Medical Times.*

VICHROW UPON THE CHOLERA AND TUBERCLE BACILLUS.—At the time of the return to Berlin and public reception of the Cholera Commission, Professor Virchow made a speech, in which he uttered some timely words of warning. He said: "It appears to me that the Government is not entirely free from the opinion that with the discovery of the bacillus everything is accomplished which may be necessary to control the disease. In this connection I may speak a warning word. It is more than thirty years since we discovered the little organism which causes the small-pox, but this fact has not changed in the least the practical measures previously adopted for its prevention. The tubercle bacillus is a very important thing, but with the exception of a new point of view of the disease, which is given, we are no further advanced in our practical relations to it." He then goes on to say that the cholera

has for some time been practically treated as though it were caused by a special organism. He also referred to the laxity of the English in the matter of quarantine.—*Medical Record.*

Suprapubic Lithotomy in a Woman.—Lawson Tait reports a case in which a calculus occurred in the bladder of a woman who had been the subject of a plastic operation for a large vesico-vaginal fistula in which the cervix uteri had been turned into the bladder permanently, menstruation occurring into its cavity. Two years later she had symptoms of stone in the bladder; the calculus was then removed by crushing. Subsequently another stone developed, which was inaccessible through the urethra. Not wishing to undo the work already done, which had required seven operations to complete, Mr. Tait performed suprapubic lithotomy and removed the stone. Although the peritoneum was opened, the patient made a good recovery. The peritoneal wound was carefully closed, and a drainage-tube passed through the urethra and the wound. The stone was a soft phosphatic concretion, and was adherent to the sac in which it had formed.—*Medical Press and Circular.*

Medical Items.

Surgeon-General Longmore, of Netley, has been elected the foreign correspondent to the Section of Surgical Pathology by the Académie de Médicine.=Dr. Thomas F. Rumbold has severed his connection with the *St. Louis Medical and Surgical Journal.* Mr. Frank M. Rumbolt assumes charge of the business management of this journal, and Dr. LeGrand Atwood will be the editor.=Dr. John B. Chapin, Superintendent of the Willard Asylum for the Insane, has been elected to succeed Thomas S. Kirkbride, as Physician-in-Chief and Superintendent of the Pennsylvania Hospital for the Insane.=Cholera is decreasing, according to latest reports, at Toulon and Marseilles, and is spreading in the surrounding country.=There were twenty-six deaths from yellow-fever at Havana during the week ending July 19th. Not a single case has been reported in the United States during this summer.=The One Hundredth Anniversary of the Vienna General Hospital will be celebrated on the 15th of August.=The Internatinal Health Exhibition, according to Sir James Paget, has been a decided success so far as the question of money is concerned, but will not be a success so far as the question of health is concerned for many years.=Sir James Paget says "what we want is an ambition for Health."=Professor Edward Jäger v. Jaxtthal, of Vienna, the eminent oculist, well known for his opthalmoscope, his atlas, and his reading types, is dead.=Companies have been organized in Pittsburg, Pa., and Buffalo, New York, for the purpose of building crematories.=Dr. Wm. A. Hammond announces that he has four novels written, and intends hereafter to publish two a year. He says he would rather be a novelist than a doctor.=Dr. R. B. Stover has retired from the editorship of the *Atlantic Journal of Medicine.*=One-eighth of a drop of croton oil in pill three times a day is DaCosta's treatment for saturnine constipation.=It is stated that the Dictionary of Medicine, edited by Dr. Quain, has met with such success that a new edition will now be brought out.=The following figures show the number of medical students at the chief German Universities during this term: Berlin, 924, including 20 from America, 6 from Asia, and 2 from Africa; Jena, 162; Bonn, 289; Königsberg, 267; Halle, 282; Göttingen, 189; Giessen, 106; Tübingen, 224; Strassburg, 182. The autumn cyclus of the holiday course of lectures for practising medical men wlll take place at Berlin from September 24th to the end of October.=Professor Virchow has begun a series of popular articles on cholera in *Die Nation*, a weekly political journal of Berlin. He condemns the French for carelessness, and takes a conservative view as to the real significance of the cholera bacillus.=Dr. Octave Pavy, Late Surgeon to the Greely Expedition, was a man of curious character, and had led a varied career. He was born in Havre, France, where he was educated, and where much of his youth was spent. Early in life he accompanied a French expedition to Lady Franklin Bay, and spent several years in the polar regions. He fought in the Franco Prussian war. At its close he came to America, where he resorted to various expedients for a living. He finally studied medicine, and began practice in 1877. He was a member of the Howgate expedition, and when this failed he remained at Disco Island, until he joined the Greeley party.—*Medical Record.*=The death of Dr. Moreau the celebrated alienist, at Paris, in the eighty-first year of his age, is announced.=One of the English courts has just decided that it is illegal to cremate a body on which a coroner had determined to hold an inquest. The body in question was that of an illegitimate infant.

Original Papers.

HOW CAN PHYSICIANS AID IN ELEVATING THE PROFESSION OF PHARMACY.*

BY F. E. STEWART, M. D., PH. G.

(*Continued from page* 269).

My next suggestion relates to the introduction of new drugs. As I have already described, a demand is created as the result of an article written by some physician describing its use in one or two cases occurring in his practice, and it is the business of the pharmacist to supply this demand at once, whether the drug turns out afterward to be of value or not, and it is not his province to set himself up as a judge of the therapeutic value of any drug. To permit the pharmacist to supply this demand, in a manner not injurious to science, and to secure the publication of full knowledge of the article, and protect the pharmacist by throwing the responsibility of its introduction where it belongs, viz.: on the introducer, while at the same time furnishing a system whereby both professions may unite in ascertaining the true value of the new claimant to a place in the materia medica, I suggested a collective investigation of each new introduction by means of the Working Bulletin system. This method may be carried out at the expense of the pharmacist or manufacturing house, by a medical or pharmaceutical society, at their own expense, by the government, or by a society organized for that purpose.

"This method of investigation consists of sending specimens of the drug to be investigated, either in the crude form or a preparation of the same, as the case may require, to a large number of practitioners scattered over the land, to the hospital service of the country at large, and to the various scientific centres connected with our leading medical and pharmaceutical colleges with a sketch of the drug, stating the condition of existing knowledge concerning it, classified under the various heads of the pharmacology and known as a 'Working Bulletin.' The Bulletin is accompanied with a printed list of inquiries which those concerned are requested to answer from their observation, after having submitted the drug to careful tests. This information is then to be re-classified and published in the form of a report, which will be deposited, with a sample of the drug and its preparations, in the pharmacological department of the National Museum at Washington. It has been suggested that the National Museum, under the auspices of the Smithsonian Institution, be made a central repository for knowledge concerning drugs, so that any one wishing information concerning a medicinal agent may obtain it by applying there for it. This we consider a valuable suggestion, and take this means of contributing our quota toward this object.

"We do not claim that information collected in this way is conclusive, but that the method is a very valuable one for collecting evidence, and is a great help toward the final solution of the problem: What is the true value of the drug?

"The information of our final report will be classified as follows: 1st, Information from unscientific sources; 2d, Information from the profession at large; 3d, Information from hospital practice; 4th, Information from scientific experts engaged in more extensive research in the physiology, chemistry, pharmacy, etc., of drugs. The last class of information may probably be regarded as the more scientific, although each class has its comparative value, and probably in the order of the above arrangement. Our first knowledge of nearly every medicinal plant in the pharmacopœia was obtained from Indian medicine-men, ignorant natives, quacks and old women. Information from the profession at large, though not to be regarded as conclusive evidence, is of still greater value. Higher still in the scale are the results of hospital practice, for here greater opportunities are given for careful observation; but as has been pointed out by *The Medical and Surgical Reporter* (Dec., 1883, p. 635—'Methods of Investigation'), the observations of one logical mind, founded on extensive research, are probably more important that the 'collective unanimity' of the medical profession at large—though even such results have too often been set aside by more recent investigations, to be regarded as infallible. Until some method has been discovered more scientific than anything yet in vogue, we must depend upon information gleaned from all these varied sources, for our knowledge of the materia medica."

This system has already been adopted and put into practice by one of the largest manufacturing firms in the country, and I

*Re .d before Phila. County Med. Society June 25, 1884

have provided myself with copies of their working bulletin on manaca, a drug introduced from South America as a remedy for rheumatism, which I beg herewith to present for your consideration, as an illustration of the system.

In a lecture delivered before the Alumni Association of the Philadelphia College of Pharmacy, November 13, 1883, on the subject of "The Relation of Pharmacy to Therapeutics," I again brought to notice a suggestion made some two years ago, in an article published in the *Therapeutic Gazette*, at that time. The suggestion is a collective investigation of the materia medica of the world by the United States Government. To do this I would have founded at Washington a government laboratory, devoted to scientific works on pharmacology in all its branches, and the collective investigation carried out by means of the Working Bulletin system.

There is, at Washington, an institution known as the Smithsonian Institution. Its founding is due to that great lover of science, James Smithson. Its object is stated in the following clause of his will: "I bequeath the whole of my property to the United States of America, to found, at Washington, under the name of the Smithsonian Institution, an establishment for the increase and diffusion of knowledge among men." The working of this grand institution is too well known to the profession for any description of it here. I suggested in the lecture referred to, that there be added to this institution, a laboratory of experimental pharmacology, for the purpose I have described. After discussing this lecture, it was voted as the sense of the meeting of the Alumni Association, that this suggestion be adopted, and that the founding of such a laboratory at Washington, in connection with the Smithsonian Institution, be recommended.

A collection of drugs, which, when completed, will represent the materia medica of the world, is now under way at the National Museum, under the auspices of the Smithsonian Institution, and it has seemed to me that the addition of such a laboratory to this Institution, provided as it is with peculiar facilities for scientific work, and beyond subsidy—being entirely outside of politics—might prove of great advantage. I accordingly sent a copy of my lecture, and a communication calling attention to it, to Prof. Baird, Secretary of the Smithsonian Institution, and received the following in reply: The first two letters are from Prof. Baird, the other is from Dr. J. M. Flint, U. S. N., Curator of the National Museum, to whom the matter was referred, and forwarded to me by the courtesy of Prof. Baird:

(1)

SMITHSONIAN INSTITUTION,
Spencer F. Baird, Secretary.
Washington, D. C., Jan. 23, 1884.

Dear Sir:—I duly received your letter with the accompanying address, and am much obliged to you for calling attention to the National Museum as a suitable depository for collection of drugs and preparations.

We have received quite a number of interesting specimens from Messrs. Parke, Davis & Co., doubtless through your intervention. Every few days an offer comes from some wholesale dealer, among the latest being Messrs. Fritzsche Brothers, of New York.

We shall be obliged to you for any future effort on your part to increase the extent and importance of the Department of Materia Medica in the National Museum.

Respectfully yours,
SPENCER F. BAIRD.

To DR. F. E. STEWART,
721 South 22d St., Philadelphia.

(2)

REFERENCE BLANK.
SMITHSONIAN INSTITUTION,
Washington, March 8, 1884.

F. E. Stewart, M. D.,
Philadelphia, Pa.

The following is a copy of letter No. 32286, dated March 5, 1884, received from J M. Flint, U. S. Nat. Museum. Please take notice of the same, and furnish me with information requisite for a reply, referring in your answer to the above number.

SPENCER F. BAIRD,
Secretary Smithsonian Institution.

(COPY.)

Professor S. F. Baird.

Sir:—Concerning the letter of Dr. F. E. Stewart, herewith returned, I have only to say that the experimental study of the physical properties and physiological action of medicines, is of the highest interest and im-

portance, and deserving of every encouragement. The creation of a department in the National Museum for such researches would involve the establishment of a chemical and physiological laboratory, and the assignment to it of experts skilled in such investigation. Of the desirability of such establishment there is no question; of its possibility under existing circumstances, you are the judge. I infer, however, that at present neither space nor funds are available for such a purpose.

I would respectfully recommend that the organization of such a department be favored, as far as may be consistent with the general plans of the Institution, and such opportunities of special study offered as the means at your disposal will allow.

Respectfully,

J. M. FLINT,
Curator.

The following letter was received at the time of reading the paper:—

SMITHSONIAN INSTITUTION,
Washington, D. C., June 23, 1884.

Dear Sir:—I duly received your letter of the 16th, in reference to the establishment of a pharmacological laboratory in connection with the Smithsonian Institution.

I wish it were in my power to take steps in regard to establishing such an agency, but at present we have no rooms available for the purpose, and no funds with which to sustain it. Perhaps in the course of a year or two, with the extended organization that we contemplate, something may be done respecting it.

Yours truly,

W. BAER.

DR. F. E. STEWART,
Care of Park, Davis & Co.,
Detroit, Mich.

I have now a final suggestion to make. It is the organization of a National Pharmacological Association, composed of those interested in the study of the science of drugs, in both the medical and pharmaceutical professions, who will unite in co-operating with the Smithsonian Institution in making this National Museum the great centre of pharmacological knowledge of this country. The importance of such a work no one will deny, and, if it is ever done, it must be accomplished by united action. In the study of the science of drugs both professions may unite, and in the earnest pursuit of this science, rivalry and bitter feeling will cease. Let us then have united action, organized, well-directed action, co-operative action, upon the part of all parties interested in furthering the increase of our knowledge of drugs; let us have a National Pharmacological Association and a scientific centre, untrammeled by trade or school affiliation, working impartially for the benefit of the whole.

Finally, I do not wish to be understood to teach in this paper that pharmacy and therapeutics should be practiced together. I have insisted so strenously on the consolidation of the science of pharmacology, that there is danger that it may be inferred that I also advise the consolidation of the arts connected with this science into one art, which shall be called pharmacology as well. By a pharmacologist, I mean one educated in the knowledge of drugs, not necessarily skilled in the practice of all the arts that pertain thereto. Indeed, no one person could find time during the natural period of life apportioned to man, to perfect and practice all of these arts. It is sufficient, if he devote himself to any one of them in which he can make a living. But I do claim that the physician, to be a skilled therapeutist, should be thoroughly familiar with the nature and properties of drugs; and that the best pharmacist is he, who thoroughly instructed in their preparation, knows the most about their application as well. I also insist that pharmacy must always depend upon therapeutics, and that the closer the association of the pharmacist with the physician—the one who prepares drugs with the one who applies them to the treatment of the sick—the better it is for progress in pharmacy, and for the welfare of the physician and his patient.

The object of this paper is to gain the sense of the Philadelphia County Medical Society in regard to the establishment of a pharmacological laboratory at Washington, for the purpose described, and to suggest the appointment of a committee, which shall be empowered to confer with the pharmaceutical profession and manufacturing houses for the purpose of drawing up a platform, containing regulations of such a nature that pharmacists and manufacturing houses who observe them, may receive

professional endorsement and fellowship, and be admitted to equal privileges with the medical profession. The adoption of this course will have a tendency to elevate pharmacy to the position of a liberal profession, and be of much better service to the profession, science and humanity, than any attempt at legislation on a subject where there is so much popular misunderstanding, and where so much money will be used by the proprietary-medicine trade to prevent the enforcement of any law that may be passed.

Clinical Lecture.

PROLAPSE OF THE VAGINA–OPERATION. THE PROPER USE OF THE FORCEPS.

A Clinical Lecture delivered at the Hospital of the University of Pennsylvania,

BY WILLIAM GOODELL, M. D.,

Professor of Clinical Gynæcology in the University of Pennsylvania.

Reported by WM. H. MORRISON, M. D.

GENTLEMEN:—This is a case of prolapse of the vagina, which is in a flaccid condition. The patient is a married woman, 55 years of age, and has had nine children. The menses stopped nine years ago, and for a number of years she had been suffering from what she thought to be falling of the womb, but an examination shows it to be a prolapse of the vagina. After one of the labors there has been sub-involution of the vagina. There has also been an injury to the perineum, which although not torn through is functionally weak. The prolapsed anterior wall of the vagina contains a portion of the bladder, while the posterior wall contains a portion of the rectum, so that there are a cystocele and a rectocele.

I think that by restoring the perineum and the posterior wall of the vagina we shall accomplish all that is needed without operating on the anterior wall, for the new perineum will probably give sufficient support to prevent the prolapse of the bladder. If it does not it will be necessary at some future time to take an elliptical piece from the anterior wall. The operation which I shall perform to-day is essentially the one which you will perform for ruptured perineum when the sphincter is not torn. When the sphincter has been torn, it is necessary to adopt a different procedure, at least as far as the introduction of the sutures is concerned.

In the labors which you will attend, you will meet with lacerations of the perineum for they are by no means infrequent. In primiparæ, laceration of the perineum is very common; not only is the fourchette almost invariably torn, but the perineum is also very likely to yield. If the laceration is not very great it may not be necessary to put in stitches, but if the tear is a bad one, especially if it goes through the perineal centre, and invariably if it goes down near the sphincter or through it, you put in stitches. I say "do it invariably," but there are some who advise that it should not be done. They reason in this way: if the woman has had a serious labor and the perineum has been torn, why should you add to her critical condition by inserting sutures? I do not consider that any argument. By putting in sutures, a denuded, raw absorbing surface is disposed of, and this will certainly be an advantage. The only circumstances in which I can see that an objection could be made to the primary operation is where a tear occurs in a case in which the head has been pressing on the perineum for a long time. In such a case the parts may not unite, but I think that it is proper even then to give them the opportunity.

My advice to you is always to look at the perineum to see whether or not it has been torn. The worst tears are produced by delivering the head all the way through with the forceps. When you have drawn the head down to the perinuem with the forceps, wait and see if the powers of nature are able to complete its expulsion. If they are take the forceps off. In exceptional cases, it will be necessary to finish the labor with the forceps. If you take off the forceps as I have advised, you are relieved of the temptation to turn the head out too quickly. It is this rapid delivery which causes the bad tears. There are some cases in which it is proper to deliver all the way through with the forceps. If the woman has convulsions, and she is under ether, you will not take the forceps off. Sometimes the pains are not sufficiently strong, and then it is necessary to deliver with the forceps. At other times there is an occipito–posterior position in which

anterior rotation does not take place. In such cases, the forceps is a safeguard, and you should use it to flex the head firmly. It is necessary to do this in order to lift the vertex over the perineum. These cases are rare, and in the majority of instances you will remove the forceps as soon as the head reaches the perineum.

In operating to-day I intend to use a yoke to support the limbs. This consists of a bar about a foot long, at each end of which is a band to encircle the thigh above the knee. By means of a sliding bar, the limbs may be separated to any desired extent. Passing around the back of the neck of the patient, and secured to buckles at each end of the bar, is a strap which keeps the thigh flexed on the abdomen. This is a great convenience, and enables the assistants to be of more service to the operator.

As you see, the posterior wall of the vagina protrudes to a marked extent. I shall utilize a portion of this posterior wall in forming the new perineum. In denuding the surface I begin at the upper part of the left side of the tear, and remove a strip of cicatricial tissue along the margin of the sound skin around the opening, until I reach a corresponding point on the opposite side. In this way I go on removing horse-shoe shaped pieces until I have denuded all that is required. I then dissect up the projecting tongue of mucous membrane, corresponding to the prolapsed posterior wall, and this will be included in the stitches and will form the posterior wall of the perineum. In building a dam the breastwork is first put in place, and then it is filled in behind with gravel, so that the stream comes against an inclined plane and the greater the pressure of water the stronger ought the dam to be. I make the slope of the dam with this tongue of mucous membrane. If the womb should descend it must go up an inclined plane. I have never had this to slough, this is prevented by the extreme vascularity of the parts.

I am now ready to pass the sutures. I shall try to bury every one of them. The first stitch is entered a half inch to the outside of the denuded surface, and with my finger in the rectum I guide it through the recto-vaginal septum, and bring it out at a corresponding point on the opposite side. The second suture is entered a little higher and passed in the same way. I continue in the same way until all the parts are brought into coaptation. The last two stitches are passed through the tongue of tissue which was dissected up. I used to limit the sutures to the denuded portion, but it often happens that the last or the two last sutures do not unite perfectly because the parts are apt to be displaced by the introduction of the syringe or the catheter, and it is, therefore, a good plan to pass an extra stitch through the undenuded portion in order to support the others.

This reminds me to say a word or two about the syringe. I used to have the vagina syringed on the second day. I do not do that now, for I think that the amount of movement necessary to get the woman into the proper position for the injection will seriously interfere with union. I simply have the perineum cleaned as the woman lies on her back. On the fifth or sixth day I begin the use of injections.

Having introduced all the sutures, I next have the parts thoroughly cleansed and before each suture is secured with the shot I have a stream of carbolized water injected on the part to wash away all clots and other foreign matters which may be there. In all these plastic operations great care must be taken that the cutaneous margins are approximated. The same is true in laceration of the cervix. If the mucous surfaces are brought in contact union is bound to follow.

The next thing is to introduce a self retaining catheter. The self-retaining catheter which I show you is the best. It is the one devised by Goodman and which has been slightly modified by Skene. This catheter is made very short, so that the bulb barely projects into the bladder and does not come in contact with the wall of the bladder, which is very irritable and resents the intrusion of a foreign body. This can be kept in almost indefinitely. In order to do this, it is necessary that the little holes in the end of the instrument should be kept open and the nurse should be instructed to inject, twice a day, warm water into the bladder through the rubber tube connected with the catheter until the patient says that the bladder is filled, and then allow the water to escape, thus cleaning out the instrument. In some cases, despite all the care that can be employed, the instrument will become clogged in two or three days. Sims's self-retaining catheter is an instrument of the past. The

one which I have shown you is the only one which I can recommend. The soft rubber male catheter makes a good catheter to be retained in the female bladder in an emergency. The eye should just enter the bladder and the instrument should be secured to the external parts with tapes. Suppose it becomes necessary to introduce the catheter, how is it to be done with the knees fastened together? The best way is to have the nurse raise the limbs at right angles to the body, when the parts become accessible to the physician. It would be difficult for the nurse alone to introduce a catheter in this case without injury to the parts, so that I shall give strict injunctions in regard to keeping this instrument clean.

After introducing the catheter, I bring the rubber tube up over the groin and let the end hang over the bed. In fat women, it is necessary to put a pad between the thighs in order to prevent the tube from being pressed upon. I next place a napkin between the knees and bind them together. The rubber tube should not be allowed to hang over the edge of the bed in such a way as to draw on the catheter. A convenient way of securing it, is to draw up a loop of sufficient size to allow the patient to turn on her side and then to pin a small fold of the sheet over it.

I shall put a suppository of one grain of the extract of opium into the bowel, but hereafter no more suppositories will be allowed, because the nurse may interfere with the union of the parts in introducing them. Instead of that we shall give morphia by the mouth or hypodermically. Usually one-fourth of a grain, morning and night, is sufficient. I have one patient here who took no morphia after the first day, although I consider this the most painful operation that I perform. The vulva and perineum have a set of nerves which are wonderfully alive. This is, I think, the most sensitive portion of the body. A patient may be completely under ether, so much so that the eye can be touched without causing winking, and as you know, the apple of the eye is spoken of, figuratively, as the most sensitive portion of the body, and yet the eye can be touched without causing any evidence of feeling, but the moment the attempt is made to pass two fingers or the hand into the vagina the woman will flinch and so resist as to compel another installment of ether. In some cases of tear of the perineum, which has been covered with cicatricial tissue, I have found the parts so sensitive that no amount of ether would prevent the patient from resisting. In one case I had to take a knife and cut through the cicatricial tissue and sever the nerves before it was possible to keep the woman from resisting the pressure of the speculum, although she was under ether as profoundly as it was possible to put her. This woman will suffer pain, and it will be necessary to give sufficient opium to allay it, but at the same time there is some danger of giving too much. The rule which I have adopted is to allow two hours to elapse before repeating the dose, and I never give less than a quarter of a grain of morphia. When I use suppositories I do not allow the nurse to give as many suppositories as she pleases. I tell her to give three suppositories at intervals of two hours, and then to wait, or if it is in the hospital to consult the resident. If too much wax is put in the suppository it may lie in the rectum undissolved. Although this method of administering opium is an important one in all pelvic operations, yet it is a method which has to be watched.

The diet will be restricted for a day or two until all danger of inflammation has passed. She will then be allowed to take good, plain food. She will be allowed to lie on her side or on her back, but she must not turn over herself. The best way to get a woman over is not to take hold and pull her, but stand firm and give her your hand and let her pull herself over. If the sphincter had been torn the diet would have to be somewhat different. Under such circumstances, in order to have as little fæcal matter as possible, no solid food is allowed.

In this case the bowels will be opened on the sixth or seventh day and on the succeeding day the stitches will be removed. When the sphincter has been torn, I take the stitches out on the eighth day and then wait two or three days before having the bowels opened. This is always a moment of great anxiety in those cases in which the sphincter has been torn, for there is always a liability of the parts to be torn assunder by some scybalous mass. In this case there is not so much danger. On the sixth day after the operation we shall give this woman two Lady Webster and two Compound Cathartic pills, or else in the morning of the sixth day give a dose of oil. If you decide to give oil you should tell the patient nothing about it until the dose is ready to take. It should be brought to her and given to her without telling her what it is. In the hospital we usually give it in warm milk.

One more word, gentlemen, and I am done. As you will be sure to meet with tears of the perineum in your practice, have in your pocket cases the necessary instruments so that the operation may at once be performed. It would be a good plan to have a needle-holder. The dressing forceps will

do at a pinch, but it is not strong enough. One reason why the primary operation is not more successful is that it is often done with improper instruments. I have sewn up the perineum with a darning needle and some worsted when I could obtain nothing else. Always discover when a woman is torn, and when you have discovered it make a clean breast of it. If you have taken off the forceps, you can attribute the rent to the child, but if the forceps have been kept on, all the old women will say that "Dr. Smith tore Mrs. Jones with his instruments." You may give ether if you wish but this is not necessary, for the parts are benumbed from the pressure which has been made on them. The only painful part is the skin where the needle enters and emerges. Therefore make up your mind exactly where you intend to introduce the needle, and then make a quick plunge. When the point comes around to the other side, thrust the needle quickly through the skin and but little pain will be complained of. Shot are not required for the primary operation, for the parts have been so stretched that twisting is all that is necessary.

Society Reports.

BALTIMORE ACADEMY OF MEDICINE.

STATED MEETING, HELD FEB. 5TH, 1884.

(*Specially reported for Md. Med. Journal.*)

Dr. F. T. Miles, President, in the chair.

Lupus and its Relation to Tuberculosis.—*Dr. R. B. Morison* read an admission thesis with this title, which appeared in full in the *Am. Jour. of the Med. Sci.*, for April, 1884, and of which a notice appeared in the Md. Med. Jour., of Apr. 5th, vol. x, p. 883.

Dr. I. E. Atkinson, referring to the relation of the bacillus tuberculosis to that disease, and especially to the views of Dr. Formad, to which some allusion had been made, said that Formad admits that the bacillus may be a cause, but only one of the causes of tuberculosis. There are two views prevalent in regard to the pathology of tuberculosis: 1. That tubercular inflammation is excited by the bacillus; 2, that it is induced by traumatism. The pathology of the subject had gone around in a circle. He accepted the bacillar theory of tuberculosis; nearly all the evidence tends to corroborate it. The nodules produced experimentally in animals are not always tubercle; bacilli may not be found in them. They simply represent an inflammation of a certain grade.

STATED MEETING, HELD FEB. 19TH, 1884.

Dr. F. T. Miles, President, in the Chair.

Intra-Mural Fibroids of Uterus.—*Dr. H. P. C. Wilson* exhibited the specimens. Case 1. Mrs. S., æt. 40, the mother of one child, now 11 years old, has suffered from menorrhagia for ten years; excessive during the last two years. She is only free from hemorrhage two weeks in each month. She has also severe dysmenorhœa. The cervix was dilated with tents Jan. 18th and 19th. On the 20th and 21st she was operated upon. An incision was first made into the capsule with knife and scissors. Ergot was then given. At the same time the tumor was pulled down with vulsellum forceps, when, by twisting the pedicle, it was extracted. She returns home to-morrow. Though still anæmic she feels well. Case II. Mrs. D., æt. 52, mother of five children, has had excessive menorrhagia for five years. Each menstrual period is succeeded by a profuse watery discharge, lasting for ten days. She was extremely anæmic in consequence. The uterus measured seven inches by the sound. The cavity, having been first mopped out with Churchill's iodine to check the hemorrhage, which was constant, was dilated with tents. After 24 hours' use of the latter sufficient dilatation had been effected to admit of the introduction of the finger. The diagnosis was then made of intra-mural fibroid, involving the right lateral wall of the uterus. The cervix being still further dilated by tents, a knife was passed into the interior of the uterus and an incision made into the capsule of the tumor; this was prolonged as far as possible with scissors. The tumor was then peeled out of its bed by passing a finger around and under it and was pulled up with Vulsellum forceps. It could not be extracted, however. Ergot was then given, and six laminaria and three sponge tents crowded into the cervix; these failed to open the internal os, and on the following day there was a terrible odor from the decomposing mass. The tumor was then again drawn down and sawed away piece by piece with Thomas' saw-

scoop. Jaundice ensued, with vomiting and every indication of septicæmia. Quinine was given freely, cold cloths, changed every ten minutes, kept applied over the abdomen, and the uterus washed out frequently with carbolized water. The operation was done one week ago. The temperature now is 98° and the patient convalescent. There was very little hemorrhage, not a half tumblerful in all—there is very little in these cases as a rule. The tumor peeled out of its capsule like an orange from its skin. This case suggests the importance of dividing the capsule at first as far as may be needed.

Dr. McKew asked why he did not proceed at once to dilate the cervix by some of the rapid modes of doing this now in use. Why did he use the carbonized injections and of what strength were they? Why did he use such large doses of quinine? As germicides, or what?

Dr. Wilson replied that there was more or less hyperplastic induration of the cervix in such cases, and tents soften down this hyperplasia as nothing else does. The strength of the carbolic injection was ʒss of pure carbolic acid to Oj water. This was used freely. Dr. Wilson used this in every case of obstetrics, and in every operation about the uterus, and had never seen any ill effects from it. He employs it as a disinfectant. He used quinine because he regarded it as the best antipyretic we possess, nothing bringing down the temperature like it. The temperature in the above case was 102°–104°. He has more confidence in quinine than any other antipyretic, but also employs simultaneously cold water and cold cloths.

Dr. McKew did not think the carbolic injection (1 to 256) employed by Dr. Wilson, of any use, nor was it harmful. Had not used in general surgery, but had in septicæmia, and never saw any permanent good from it. Had seen no effect on temperature from ten grains of quinine, and only a temporary one from twenty grains. Besides it has almost always produced diarrhœa and exhaustion, when used in large doses. He has therefore determined never to use it again in this way.

Dr. Wilson referred to the effect of carbolic acid on bad odors. Has perfect confidence in the disinfecting powers of the agent, if persistently and faithfully used. Would quit gynecology, if he had not faith in it; or some disinfectant equally as good. Goes from one operation to another without hesitation after cleaning his nails and washing his hands in a carbolic solution. Whether they be spray or anti-spray men, all operators use disinfectants in some form. The air is much more apt to be impure than instruments. Would continue to use carbolic acid, if only to remove smell.

Dr. Uhler employs this agent in the strength of ʒj to Oj, with which he washes the instruments, hands and patient before operation.

Dr. Chisolm read the paper of the evening on How to Shrink Hypertrophied Tonsils.—Dr. Chisolm unhesitatingly prefers excision when the patient will permit the use of the knife. It is the safest, quickest and surest method. Prefers one radical operation to repeated ones. Has never seen a bleeding which gave any anxiety at all, and would regard it as due to injudicious or unskillful treatment. But timid parents may decline the operation for their children. No absorption is possible from internal remedies, or from the local use of astringents. Caustics alone under these circumstances promise diminution; but they are often violent in their action, require frequent repetition, and are difficult to limit in their effects to the surface. The tonsils are spongy in character, being honeycombed by the follicles dipping down into their substance. These follicles are more poorly supplied with sensory nerves than the surface of the gland, so that the caustic may be applied both more effectually and with less pain to the interior of the follicle than on the surface.

It is thus that Dr. Chisolm proposed to shrink the gland. He employs a wire the size of a fine knitting-needle and a saturated solution of chloride of zinc; he roughens the wire at one end and wraps a little absorbent cotton on it; then dips it into the solution and thrusts it to the bottom of a follicle, keeping it there several seconds. Several of the follicles may be cauterized at one sitting, and a few applications suffice to produce shrinkage. This method is bloodless. There being no surface ulceration, no discomfort is experienced. Children seem to suffer none. Has applied it as early as 4 years. Chromic acid causes pain, ulceration and sore throat.

Cases of Herpes.—*Dr. R. McSherry* reported several cases of herpes. The first case, herpes zoster, was in an old gentleman, who suffered intolerably for a long time. The cause was obscure. Diabetes mellitus super-

vened, and subsequently, the deep persistent pain was explained by the progressive development of aneurism in the abdominal aorta. Case II was one of herpes zoster of the left side in an elderly lady, in association with angina pectoris. Case III was in a lady past the menopause. It may be called a case of herpes progenitalis. She suffered from vaginitis for which an ointment of calomel and lard, gr. x--ʒ i, was applied several times with relief. Some days later an intolerable pain developed in the right groin along the course of the anterior crural nerve. Movement was torture. Anodynes were given freely. Chloral and hyoscyamus eased her and put her to sleep. Erythematous patches appeared along the course of the anterior crural nerve, followed by a herpetic eruption. This lumbo-abdominal neuralgia he believed resulted from the vaginitis.

Dystocia Due to Hydrocephalus.—*Dr. Ashby* reported a case of breech presentation in which difficulty was experienced from the pressure of hydrocephalus. He succeeded in extracting the head by pressing the occiput back and drawing down the chin. The child was dead when he first saw the patient. There was post-partum hemorrhage, which hot water injections failed to arrest, but which was checked by injecting vinegar with a Davidson's syringe. The mother is not yet 16 years of age. The position was a left sacro-iliac anterior. The fœtus weighed 10 pounds, and measured 24 inches in length; the diameters of the head were: occipito-mental, 8 inches; occipito-frontal, 7 inches; sub-occipito-bregmatic, 5 inches.

Breech Presentation in an Old Primipara.—*Dr. H. P. C. Wilson* reported the following case: Mrs. K., a lady advanced in years was confined with her first child January 28th. The breech presented, the sacrum to the front. Dilatation of the os progressed but the breech caught at the superior strait. Chloroform was given, and an effort made to draw down by a finger in the groin. This failing, the presenting part was pushed back into the uterus, and the feet brought down. The arms being extended were brought down, first one then the other. The head was extracted by a finger in the mouth and traction on the shoulders. The child b eathed before it left the vagina. Feb. 5th he was summoned to her. The os was patulous, and she was having pains. Carbolic solution was being used. A horribly offensive clot came away, and she had a septic peritonitis but got well.

Dr. Taneyhill thought that the difficulty in this case was due to an oblique presentation at the superior strait, and suggested that it might be rectified by turning the patient on her face.

Reviews.

Post-Nasal Catarrh and Diseases of the Nose Causing Deafness. By Edward Woakes, M. D., London. Amer. Ed. Phila., P. Blakiston, Son & Co., 1884.

English medical literature is singularly deficient in matters relating to diseases of the nasal cavities and their treatment. Until very recently very few of our British confrères were accustomed to explore the nasal passages, except when in quest of a polypus, or when their attention was irresistibly attracted to these chambers by the stench of an ozœna. Even the most recent special literature is marked by no advance in this department, and consists simply in the reflection of German and American investigation. Whilst chronic nasal catarrh is acknowledged as of not infrequent occurrence in the "scrofulous" (whatever that may mean), the almost universal impression seems to have been that the exclusive monopoly of this affection, as well as its equally common accompaniment, post-nasal catarrh, belonged to their American cousins. That very little is yet known in England concerning these diseases arises from the simple fact that the practical application of the rhinoscope is still in its infancy there, and surgeons have not become familiar with the morbid conditions which its constant use reveals. We, therefore, welcome this first attempt to familiarize the English medical public with the results of recent studies upon the subjects of which it treats. Dr. Woakes' book challenges attention, not on account of originality in the practical parts of his subject, but on account of his speculations in regard to the rôle which the sympathetic nervous system plays in the production of catarrhal inflammation. It was mainly for this purpose, we imagine, that the book before us was written.

The author bases his hypothesis of the origin of catarrh on the assumption that the ganglia of the sympathetic act as sub-centers, bringing various tissues into reflex relationship by virtue of an inherent correlating power, by which the afferent impressions, starting in a given tissue, are reflexly referred to a totally different tract.

Nasal catarrh is a neurosis of the cervical sympathetic ganglia, whose essential feature consists in an inability on the part of these ganglia to transmit reflexly the afferent impressions to the efferent vaso-motor nerves. A condition of perpetual vessel dilatation is thus kept up in the tissues, where the latter are distributed, as the result of which hyperplastic changes develop. The chief predisposing causes are the possession of a diluted syphilitic taint, inebriety on the part of the progenitors of the catarrhally predisposed, and disturbances in

nutrition, consisting, mainly, in mal-assimilation of the hydro-carbons. The phenomena of taking cold are explained in accordance with the above, and the author finally proceeds to draw the general inference that catarrhal symptoms spread to contiguous regions, because the adjacent structures receive their *nervi vasorum* from a center (ganglion) identical with that which mediates in a similar way the regions primarily affected. In fact, if we accept the fundamental contention of the author, there is no limit to the speculative excursions of the imagination.

It will be impossible within the limits of this review to do more than speak of the vulnerable arguments of the author in a general way. The idea of a vaso-motor catarrh is by no means new. Trousseau, whom the author does not mention, told us that years ago, and clinical and experimental proof of its existence have been abundantly furnished in more recent times; but that all forms of catarrh originate in a functional neurosis of the cervical ganglia is a position which cannot be maintained in the face of existing facts. That there are areas in the body intimately related to each other through the vaso-motor system is likewise true, as has been shown on numerous occasions; as it is also true that such relationship has never been satisfactorily explained. We are surprised to find no reference to the classical experiments of the Germans, or to the recent investigations of Steinbrügge, Moos and others.

So long as the author confines himself to the reflex relations between organ and organ, and to the vaso-motor origin of certain forms of catarrh, he is only in accord with the published clinical and experimental experience of others, but when he enters upon the original portion of his study—the assumption that the sympathetic ganglia possess the exclusive power of correlating tissue and tissue, he trenches upon a position for which there is not only no clinical or experimental proof, but which is directly opposed to the results of recent physiological research. We think the arguments of the author inconclusive, and his assumptions often show that he himself is aware of the weak points in his contention. The excuse may be urged, perhaps, that he views his subject from the standpoint of an ultra neuropathologist, and not from the experience of a practical rhinologist. While we follow his pleasant narrative with interest; while we admit its attractive nature, we cannot, in the face of clinical and experimental evidence to the contrary, and in the absence of proof in its favor, consider it except in the light of an interesting speculation.

The practical portion of the work deals with the commoner affections of the nasal and post-nasal passages, and while, by no means complete, sets forth the elements of the subject in a pleasant, attractive style. Although but the briefest reference is made to American authorities, the author shows his acquaintance with their writings by the incorporation of the results of their experience in the text. This is, perhaps, most conspicuous in the pathology of nasal catarrh and hay fever, in the matter of reflex phenomena originating in disease of the posterior erectile portion of the nostrils, the importance of obstruction of the inferior meatus as a factor in the causation of middle ear catarrh, and in the general methods of treatment. The author ignores the Germans completely. No one at the present day can afford to write upon diseases of the nose without frequent reference to German and American authorities, and we hope that, in the second edition, this oversight will be corrected.

There are several mistakes which should be corrected in the next edition.

The tissue, for example, at the posterior part of the septum is described as "muco-periosteum, closely adherent to the subjacent bone" (p. 100; also Fig. 21, p. 196), while, in point of fact, it is erectile tissue as first demonstrated by Bigelow. It is implied that Sir Andrew Clark first described the pharyngeal tonsil, whereas the honor of its discovery probably belongs to Schneider. The assertion that acute simple coryza is contagious does not agree with the results of special investigation directed to the determination of this point. Think of a contagious neurosis of the cervical ganglia of the sympathetic! In limiting the term "ozœna" to disease of the accessory sinuses the author ignores the teachings of pathological anatomy and returns to the exploded theory of Vieussens.

For ablation of the tonsils the English [?] (we presume he refers to the American instrument of Physick) tonsillotome is preferred. We regard the advice, "that the uvula should never be removed *in toto*" as superfluous, as no one attempts such a thing who is acquainted with the rudiments of vocal physiology. The use of the solid stick of nitrate of silver (p. 136) in the nasopharyngeal space, and the ethereal spray of iodoform in the anterior nares are open to serious objection, whilst the use of cotton tents as a means of carrying remedies within the nose, used by the ancients, resurrected by Gottstein, and recommended by the author, have been, we believe, generally abandoned in this country as ineffective and tending, frequently, to do more harm than good. There is, we think, nothing to be gained by calling the papillomatous growths, so well described by Hoppman, "lymphoid excrescences" (p. 183); besides, the latter designation is unfortunate in a pathological point of view. The statement that posterior hypertrophies fre-

quently occlude the orifices of the Eustachian tubes (p. 185) is too exaggerated—in our experience this is the rarest of occurrences. We have occasionally heard the term "ploughing the nostrils" used by the ignorant in a derisive manner of those who see in mechanical measures the rational way of overcoming the results of nasal obstruction, but we have never seen the instrument for accomplishing that end, until we met with the figure of the author's "nasal plough" on page 202. This is essentially a gouge for the removal of the inferior turbinated bone. The operation requires an anæsthetic, and it is claimed that hemorrhage is trifling in amount.

Taken as a whole, the book is inferior to the excellent brochure of the author on "Deafness, Giddiness and Noises in the Head." It is marred by the too frequent occurrence of implied claims to originality, and by the failure to acknowledge the work done by contemporaneous observers in the special domain of which it treats. While the practical part of the essay offers nothing notably new to the American specialist, it should be read by all who are interested in the subject, even though they may arise from its perusal without an abiding faith in the speculations of the author. To the busy practitioner, who has not access to current rhinological literature, it may be recommended, as far as its practical nature goes, as a safe and reliable guide. We hope, finally, that it may stimulate others in England to give us their experience in this special field, and that, with the example before them, and increased acquaintance with the rhinoscope, we may, in the near future, hear less of "American," and more of "English catarrh."

J. N. M.

PRURITUS VAGINÆ.—Dr. Hach stated at the Riga Medical Society (*St. Petersburger Medicinische Wochenschrift*, March 22nd), that, in a very obstinate case, in which various external and internal means had been employed in vain, he had met with complete success from dusting the mucous membrane of the vagina with iodoform. Beyond slight redness of the vagina, no diseased appearances were observable. Dr. Rulle stated that he had often employed iodoform balls in this affection, but had derived better results from the watery extract of opium, and small injections of cold water. He believed that this pruritus often arose from a slight dilation of the rectum, just above the sphincter ani, which gave rise to detention of fæces there.—*London Medical Times.*

Editorial.

THE BOWER & KEATES CASE.—Some weeks back we took occasion to refer to the celebrated legal case of Messrs. Bower & Keates, two medical practitioners of East Dulwich, England, against whom legal proceedings had been instituted by a Mr. Wood to recover damage: first, for manslaughter in the case of his child that died with diphtheria after the operation of tracheotomy had been performed; and, second, to recover damage for the danger he ran by sucking the tracheotomy tube without being informed of the risk of infection. We referred to the fact that on the second trial before Lord Coleridge, both the jury and the Chief Justice gave a verdict for the defendants. It will also be remembered that during the long and tedious processes of the trial Messrs. Bower & Keates were subjected to heavy legal expenses in defending their suit, and that this expense was met by the liberal action of the profession of Great Britain. It was believed that the verdict of the second trial and the opinion of the Lord Chief Justice had finally decided the legal points in this case. It seems, however, that the plaintiff is an obstinate and determined man, and, not being satisfied with the verdict of the court, has made recent application to the court for an order for a new trial on the ground that his case had not been properly put before the jury. After a long argument the court has ordered a new trial, "on the ground that the question, whether the defendants' mistake, in not warning the plaintiff that he was exposing himself to the risk of diphtheria, amounted to negligence, ought to have been left to the jury, and that they ought to have specially considered whether he had been improperly exposed to danger in consequence of any neglect on the part of the defendants to do what, under the circumstances of the case, it was their duty to do." This decision of the courts reopens this celebrated case, and again imposes upon these surgeons the necessity of a new defence, with its attendant expenses, annoyances and uncertainties. As these gentlemen were so liberally encouraged and assisted in former trials by their professional brethren in England, it is believed they will be still further supported in this legal contest. The principle at stake is one which affects the interest of every medical practitioner, and Messrs. Bower & Keates in defending their suit are virtually contesting a legal action which aims to oppress the entire medical profession.

LESSONS TAUGHT BY THE CHOLERA EPIDEMIC.—In the prevention of disease, as in many things which concern mankind, expe-

rience is the great teacher. It seems necessary that communities, like individuals, should grow wiser by the lessons of experience. It also happens to communities, as it does to individuals, that experience enforces its lessons of instruction by stern and rigid discipline. The present epidemic of cholera in the south of France has taught a lesson of bitter expe rience to the unfortunate people of Toulon and Marseilles. It has carried death and desolation into many homes, it has brought ruin and poverty to many people; but this experience, as rough as it may be to the inhabitants of these desolated cities, is already bearing its golden fruits. If these communities have been made to suffer, other communities have been immensely benefitted by the lessons which this epidemic has taught. The first lesson taught by the epidemic was the mode of its origin and spread. It has been shown beyond doubt that the outbreak was due to the foul and imperfect sanitary condition of these cities. Cholera is beyond dispute a filth disease, and the present epidemic has had its origin and development in the conditions which were most favorable to the exercise of this influence. The history of this epidemic has called attention in the loudest terms to the necessity of municipal and personal cleanliness. The result of this has been that the European and American cities have, with few exceptions, adopted prompt and vigorous systems of sanitation Municipal and State Health Boards have issued manifestos and bulletins calling attention to the important lessons of cleanliness and disinfection. Quarantines have been established in all of the European and American ports, and every method seems to have been employed to prevent the introduction of the disease into new localities. No one will be able to deny the fact that this epidemic will have a most valuable influence in educating the public in sanitary matters. Throughout Europe and the United States there has been an unusual amount of uneasiness and anxiety felt on account of the disease, and this feeling of alarm has been expressed in a vigorous amount of municipal cleaning, disinfecting and quarantining. The thorough and perfect manner in which these sanitary measures are carried out will be influenced, in a great measure, by the extent of the epidemic. Should the disease suddenly die out in southern France, the lesson it has taught will probably soon be lost upon our municipal authorities. Whilst we do not wish the people of southern France any worse affliction than they have experienced, we have reasons to believe the rest of the world will be still further benefitted by the continuation of the disease awhile longer. It takes a severe scare to educate the public in the use of prophylactic measures against all forms of disease which result from filth. Our American, and probably the majority of the European cities need a more thorough cleansing than they have yet received, and this they will not get until they have experienced more of the alarm which exists in southern Europe. It is well to remember that cholera is not the only filth disease. Typhoid fever, scarlet fever, diphtheria and small-pox prevail from time time in every city, and annually destroy more lives than any number of cholera epidemics. May not the latter disease be of service in preventing the former if it enforces the all-important lesson of absolute cleanliness, personal and municipal?

Swimming as an Art Preservative of Life, and the Resuscitation of the Drowned.—In these days, when so much stress is laid, and justly, upon the importance of obviating or removing the preventible causes of death, it is singular that we hear so little from sanitarians and hygienists upon the means of preventing death by drowning. The mortality from this cause, especially during the summer months, is by no means insignificant compared even with those diseases like diphtheria, typhoid fever, etc., which are characterized as preventible diseases. Now we venture to affirm that 80 to 90 per cent. of the cases of drowning would be averted if the persons concerned knew how to swim.

As to the importance of such knowledge every one will be willing to agree theoretically, and yet few, comparatively, have such a real conviction on the subject as to lead them to make a personal application of their opinion to their own cases. And so it is, that men, women, and children, go along their life paths, to and fro, without a thought of a possible day of disaster, and sanitarians never raise a voice of warning, and physicians display an absolute apathy to the subject, until some sad event, as the Tivoli disaster, rouses us for a time to our responsibilities and insecurity.

A year or two ago a young lady fell from the deck of a steamer that was just about to leave the wharf of a summer resort in the Chesapeake Bay on her return to the city. The vessel was crowded with men, women and children, and the alarm was raised immediately. Life preservers were thrown into the water, and the drowning woman was heard to cry out as she rose to the surface a first and a second time. There was not a *man* there, however, who had the courage to jump into the water to save that woman, and she sank to the bottom. Her body was found after some hours search much mutilated by crabs.

Now who can doubt that if that young woman had been taught to swim and had been able to keep herself afloat for even five minutes she would have been saved? Or that the same result would have occurred had there been an expert swimmer on the deck—one well accustomed to the water, and with that self-confidence which familiarity with it always brings.

A thoughtful person cannot fail to heed the lesson of such an accident, and we have no hesitation, therefore, in directing attention forthwith to the claims upon our patronage and support of the Baltimore Natatorium on North Howard Street. Here persons of either sex, and almost all ages, can learn the art, *tuto, cito et jucunde*, safely, quickly and pleasantly. We have already had occasion to refer to this pool as the largest in the United States; indeed it is claimed to be the largest in the world. It is certainly a magnificent artificial sheet of water, with depth varying from two to six feet, with a temperature of 80° F., and with skillful and accommodating attendants always on hand to give instruction and to guard against accidents. Are we not to blame if we neglect to use such an opportunity, and at the same time help to support and maintain an institution of such importance to the community, one which, notwithstanding its usefulness has not (as we learn with regret,) made any return to those who have had the public spirit to invest their means in it? At any rate, no sensible person can be indifferent to the importance of this subject if he only has it impressed *in some way* upon his mind and attention.

Another allied subject of the greatest practical importance in connection with the saving of life on the water is the resuscitation of the drowned. Now it is quite evident upon the least reflection that any rules which may be adopted with relation to the resuscitation of persons rescued from drowning must have reference to the comprehension and utilization of non-medical persons, since whatever is done under these circumstances must be done immediately and a physician can rarely be gotten without some delay. The simplest measures that we know of are those known as Howard's method. This we believe has been adopted by the Government and taught to the men on the life-saving stations along our coast. We would suggest that "Howard's plan" be printed and distributed at all places of resort along our waters, and that it be there conspicuously posted up so that all may become familiar with it. Our State Board of Health might find useful employment for its leisure hours in directing this distribution throughout our own State.

Miscellany.

The Treatment of the Navel in New-Born Infants. — The two dangers which are to be avoided in the treatment of the naval-string are: (1) hemorrhage from the stump; (2) inflammation of the navel and its consequences. When the child begins to breathe, a complete change in the conditions of the circulation, of course, takes place. Within ten minutes after ligation of the navel string the pulsation in the stump has ceased, as a rule. On account of the freedom from umbilical hemorrhage, which usually obtains in animals and in certain primitive races of men among whom ligation of the navel-string is not practiced, it has been proposed by some to do away with the custom of tying as unnecessary, but this proposition has not been received with favor by the conservative element of the profession. Hemorrhage may occur hours or days after birth from causes which produce increased activity of the heart, or as the result of obstruction in the venous system. This accident is especially to be feared in the case of immature and asphyxiated children. The double ligature of the cord, that is, at both the fetal and the placental end, is advocated in all cases as the safer method, especially since one does not always foresee a possible twin pregnancy, and hemorrhage from an unligatured cord, in such a case, might be an unfortunate occurrence. The authors are not in favor of ligation immediately after birth, nor do they think it desirable to await complete cessation of pulsation of the umbilical artery. There is some danger in either procedure, and an interval of two or three minutes from the time of birth is thought to be sufficient to obviate that danger. The materials which are recommended for the ligature are carbolized silk or hempen cord, or some form of elastic ligature. Säuger recommends penetration of the cord with a needle, and winding a suitable ligature around it at both ends, but the authors do not think well of the plan. If elastic ligatures are chosen, either thin rubber-bands may be used or small drainage-tubes. Greater security will be obtained by winding them two or three times around the cord before tying. By the eighth or tenth day, not only should the stump have been cast off, but also the navel should be entirely healed. As to the treatment of the cord after ligation, the less it is interfered with the better. Of course the less moisture it receives the sooner it will mummify and drop off. The cotton or linen in which it is wrapped should be changed daily, cleanliness being an important feature of treatment. Säuger and Fehling recommend that a layer of salicylate of starch be sprinkled upon the bandage which is to be

secured around the stump. Extensive antiseptic precautions in a matter of this character are thought to be unnecessary. In some cases they are, doubtless, harmful.—*Archiv f. Gynækologie, B. xviii., H. 1. Archiv. Pediatrics*, July, 1884.

Infant Feeding.—In an article with the above title (*Archives of Pediatrics*, July 15th, 1884), Dr. H. R. Bigelow, of Washington, D. C., discusses the subject of infant digestion and assimilation at some length, and presents some interesting facts in support of an artificially prepared food which commends it to favorable mention. Dr. Bigelow discusses the physiological and chemical necessities of the young infant, and points out the demands of infant digestion for a food, for those infants deprived of the mother's breast, which contains the main constituents of human milk in closest relation to its physiological composition. He assumes correctly that woman's milk is the best food for the infant, and that a food which can satisfactorily approximate this great food of nature, is the only true substitute for it. After comparing the relative composition of human and cow's milk, and showing the want of harmony between the two, Dr. Bigelow concludes that cow's milk cannot ever be safely substituted for human milk, until it has been transformed by some chemical process which science has not yet developed. Looking around for an artificial food which makes the nearest approach to that designed by nature for the requirements of the child, Dr. Bigelow is induced to use Mellin's food, which according to chemical analysis seems to be a close imitation of mother's milk. In this remedy he has implicit confidence which was strengthened and built up by a series of cases in which the remedy was most successfully used Dr. Bigelow concludes his paper with a report of cases of marasmus and entero-colitis which were cured by the use of this food.

Peptonizing of Milk.—The pancreatic secretion digests milk that is rendered alkaline at 100° to 150° F. Milk thus treated becomes in 20 to 60 minutes thinner, resembling human milk in appearance, and if the peptonizing be continued beyond a certain point and is more complete, its taste is decidedly bitter. The process should be watched and the peptonizing suspended as soon as the bitterness becomes appreciable, for although more advanced peptonizing so changes the milk that it is more easily digested by the infant than when the peptonizing is partial, yet the bitterness which is imparted to it renders it very disagreeable as a dietetic preparation. Milk thus prepared closely resembles human milk in appearance, and its casein is so digested that it is either not precipitated by acids or is precipitated like that of human milk in flakes. By this process a digested or an easily digested casein is produced, instead of the casein of ordinary cow's milk, which produces large and firm masses in the stomach, masses which the digestive ferments penetrate with such difficulty that they cause indigestion and appear in the stools as coagula of greater or less size. Pfeiffer pointed out that when peptonized milk is employed "the fæces showed absolutely no trace of the white cheesiness." Milk thus prepared quickly spoils, and it is necessary to peptonize it in small quantities and often during the twenty-four hours.

In New York during the last year, peptonized milk has been employed largely as recommended by Pfeiffer, and with such results as to encourage its further use. It is now used in the N. Y. Foundling and Infant Asylums. Extractum pancreatis (Fairchild & Co.'s) gr. V, and sod. bicarb., gr. X are added to one gill of warm water. This is mixed with Oj of warm milk and placed in a convenient vessel in water kept at 100° F. for one hour, or less if it begin to be bitter, when it is placed upon ice to prevent further digestion. With some specimens of milk, especially at a temperature of 115° to 120° F., a half hour or even less is sufficient. This artificial digestion is arrested either by boiling the peptonized milk, which destroys the ferment, or by reducing its temperature to near the freezing point which renders it latent and inactive but does not destroy it. In the present state of our knowledge of infant feeding, we can recommend no better substitute for human milk than peptonized cow's milk, which promises to be instrumental in saving the lives of many infants who by the old method of feeding would inevitably perish.—*Dr. J. Lewis Smith, in Archives of Pedriatrics*, July.

Treatment of Ophthalmic Migraine.—Féré writes on this subject in *Le Progres Medical* (June 7th) as follows:—

Migraine is generally considered by those who suffer from it a disease whose treatment is hopeless. These patients become accustomed to their suffering and rarely resort to the physician. There is, however, a form of migraine, the ophthalmic, characterized by the existence of a scintillating or hemianopic scotoma, a suborbital pain, nausea, and vomiting, which deserves more attention. This migraine, indeed, instead of showing itself in this relatively benign form, may be accompanied by other phenomena such as aphasia, monoplegia, hemiplegia, and partial epilepsy. Moreover, these phenomena after having been for a long time transitory may become established as a permanent state, making the victims true in-

valids. Among these collateral phenomena capable of becoming permanent, aphasia is one of the most frequent. The complications of aphasia may also in some cases be present. M. Charcot recently showed at his clinic such a patient in whom was a combination of word-deafness and blindness, of agraphia and logoplegia.

Ophthalmic migraine, at least in its complicated forms, should not be considered a benign affection. It has, on the contrary, a grave prognosis, since by a repetition of attacks it may induce a serious infirmity. Hence M. Charcot insists in such cases on the employment of active treatment. In a certain number of cases he succeeded in lessening the frequency and gravity of the attacks by the use of bromides which he employed as in the treatment of epilepsy. This method consists in giving bromide of potassium (or preferably a mixture of bromides of potassium, sodium and ammonium) in increasing doses for three or four weeks, then returning to a dose equal to or a little larger than that at the time of beginning, according to the result obtained, and so continuing. By this mode of administration it is aimed to avoid the accidents of bromine accumulation.

It must be remembered that this treatment has a chance of success only when the symptoms are not the result of material lesion, as happens, for instance, at the onset of general paralysis.—*Bost. Med. and Surg. Jl.*

Case of Intestines Adherent behind Uterus, causing intense Pain, relieved by Abdominal Section.—Mr. Lawson Tait, reports the following case in the *Lond. Med. Times:*

S. B., aged 32, presented herself at the Birmingham Hospital for Women early in November last, complaining of constant pelvic pain dating from her last confinement, and much aggravated by the patient having "strained herself" six weeks before. On examination, the uterus was found to be somewhat fixed with a mass behind it, very tender on pressure, and clearly cystic. But for the fact that she complained of no increase of pain before or during menstruation, I should have diagnosed the case to be one of occluded and distended tube. As it was, I made no diagnosis, but advised abdominal section. This the patient readily agreed to, and I performed it on November 8th. I found a good deal of matter in the pelvis, and a coil of intestine adherent in the cul-de-sac. I undid the adhesions without much difficulty and closed the abdomen. She left the hospital on November 28th, and has been entirely free from pain since. I have just seen her (July 7th), and find that she has had no return of her old symptoms, and is in perfect health.

This case is a very instructive one, for the physical signs were those of pyo- or hydrosalpinx; and if it had happened that the patient had suffered much at menstruation, I certainly should have set it down as a case of one or other of those diseases. Suppose that, under this belief, I had acted as some (who have had no experience) advise, suppose I had tapped from below, I should have done no good; I should probably have made my patient worse, I might even have killed her. On the other hand, following my rule of opening the abdomen, I was able, with very little difficulty, to cure completely a condition which distressed the patient, which put her in constant risk of her life, and for which no other remedy was possible.

The Nutritive Value of Branny Foods.—In a paper on this subject, read before the College of Physicians, of Philadelphia, the authors, Drs. N. A. Randolph and A. E. Roussel, sum up the following deductions from the facts, old and new, which have been presented to them:

I. The carbohydrates of bran are digested by man to but a slight degree.

II. The nutritive salts of the wheat grain are contained chiefly in the bran, and, therefore, when bread is eaten to the exclusion of other foods, the kinds of bread which contain these elements are the more valuable. When, however, as is usually the case, bread is used as an adjunct to other foods which contain the inorganic nutritive elements, a white bread offers, weight for weight, more available food than does one containing bran.

III. That by far the major portion of the gluten of wheat exists in the central four-fifths of the grain, entirely independent of the cells of the fourth bran layer (the so-called "gluten-cells"). Further, that the cells last named, even when thoroughly cooked, are little, if at all, affected by passage through the digestive tract of the healthy adult.

IV. That in an ordinary mixed diet the retention of bran in flour is a false economy, as its presence so quickens peristaltic action as to prevent the complete digestion and absorption, not only of the proteids present in the branny food, but also of other food-stuffs ingested at the same time.

V. That, inasmuch as in the bran of wheat as ordinarily roughly removed there is adherent a noteworthy amount of the true gluten of the endosperm, any process which, in the production of wheaten flour, should remove simply the three cortical protective layers of the grain would yield a flour at once cheaper and more nutritious than that ordinarily used.

Black Haw in Vomiting of Pregnancy.—Dr. W. B. Ketner, of Superior, Nebraska, writes to the *Therapeutic Gazette* that after having tried in vain oxalate of cerium, morphine hypodermically, pop corn, hot water and other remedies in a case of obstinate vomiting of pregnancy, he was induced to try black haw on account of its well known effect on an irritable, pregnant uterus. After giving 30 drops of the fluid extract every hour, for three hours, he succeeded in getting the stomach to retain it by administering the first dose soon after a hypodermic injection of morphine. "After three hours were up," says the Doctor, "my medicine was still retained, and I diminished the dose to 20 drops and made the time between doses 2 hours. Twenty-four hours had not passed when all nausea had ceased, and the stomach tolerated food.

"Attention for a few days to my patient's imperfect digestion has put her into a very comfortable condition. In two former pregnancies this lady has suffered for nearly a month from this very annoying complaint, and became so exhausted as to be unable to leave her bed.

"I feel like acceding to black haw, that it may be of good use in this new field, though one case can do but little more, perhaps, than suggest its use in such cases

"This patient had been vomiting for two days before I saw her, and for the next three days I only partially relieved her, until I tried the black haw. On the morning of the sixth day after the vomiting began, she ate a hearty breakfast and has continued to improve to the present time."

The Treatment of Ozœna.—Ozœna, according to the definition of Roth, consists of a chronic inflammatory process of the nasal mucous membrane, with a tendency to atrophy: the secretion from the glands becomes altered, forming a membrane containing organisms which decompose and cause that intolerable odor. The following points are demanded of therapeutics:

1. To soften the dried secretions, remove them and prevent their formation.

2. To restore diseased mucous membrane to a normal condition.

3. To remove the odor.

R. makes an effort to accomplish this by the dry tamponade of Göttstein. In the morning he employs a mixture consisting of the following ingredients: Thymol 1-10 per cent., acid carbolic ½ per cent., with a 1 to 2 per cent. solution of tannin or alum, by means of a spray. He claims that by this process even the remotest portion of the nasal mucous membrane is reached.—(*Ther. Gaz.*, *Deutsche Medizinal Zeitung.*)

Inguinal *v.* Lumbar Colotomy.—Dr. Wm. Allingham says in the London *Lancet*, "I have performed lumbar colotomy thirty-nine times for the relief of cancer of the rectum. Since 1881, the date of my book, I have added twenty-six to my number, making a total of sixty-nine lumbar colotomies for cancer of the rectum, sigmoid flexure, and descending colon. I think my success has been very good considering the varied conditions of the patients; only two have directly died from the operation. In one case I opened the duodenum by misadventure, in the other the patient had so freely taken purgatives that when the colon was opened she sank from the continuous rush of fluid feces, which, despite all efforts, could not be arrested. I do not put much faith in surgical statistics, but I may say that the average duration of life in my sixty-nine cases has been something over six months. In the St. Thomas's Hospital Reports, 1870, I, in my opinion, described the best and safest method of operating, and gave anatomical precision to the finding of the colon. My plan was founded on numerous dissections and some experience in operating, and I am now certain that strict attention to my method will best guide the operator to the discovery of the *undistended* bowel. I am not aware that any surgeon had previously given accurate directions for the performance of the operation."

In Memory of Dr. Ambler.—Dr. Edwin Shippen, United States navy, acting as the representative of his fellow-surgeons in the navy, has had a beautiful brass tablet, 3½ by 2½ feet, cut by a Philadelphia firm for erection in a village church yard in Fauquier county, Va. The tablet bears the following inscription: "James Markham Ambler, passed assistant surgeon, United States navy, died on the banks of the Lena river during the memorable retreat of the ship's company of the United States Arctic steamer Jeannette, in the year 1881. His sense of duty was stronger than his love of life. In memory of his noble example and heroic death this tablet is erected by the medical officers of the United States navy."

Chloral Hydrate as a Vesicant.—Dr. A. M. Fauntleroy, of Staunton, Va., advocates in the *Southern Clinic*, the following plan of using chloral hydrate as a vesicant. Powdered chloral sprinkled on adhesive plaster and melted by a gentle heat (not more than enough to cause plaster to adhere to the flesh) is applied, while warm, to the part where the blister is wanted; within a few minutes a gentle heat is felt, increasing in intensity for a short time, then gradually easing off, and at the end of about ten minutes the part is free

from pain. At the expiration of this time, or as soon as the pain has subsided, the plaster, if removed, will disclose a surface as effectually blistered as by a cantharidal plaster after six hours. Thus within about ten minutes the work of an old-fashioned blister is accomplished, with many advantages over the latter: 1st, rapidity of action; 2nd, the ease of application; 3rd, the non-occurrence of strangury, and 4th, it may never be taken off to have the blister dressed, but may be allowed to remain until the plaster loosens and comes off itself, the blistered surface in the meanwhile healing kindly.

THE MULTIPLE WEDGE PRINCIPLE IN THE TREATMENT OF ORGANIC STRICTURES OF THE URETHRA.—In a paper with the above title, read before the American Surgical Association at its recent meeting in Washington, and published in the *Jl. of the Amer. Med. Asso.* (July 19th), the author, Dr. Jno. S. Coleman, of Augusta, Ga., comes to the following conclusions:

First: That in the treatment of organic strictures of the urethra, urethrotomy whether internal or external, and also the method by divulsion, are attended with serious risk to the patient on account of hæmorrhage, pyæmia and uremia.

Second: That strictures treated by these methods are no less liable to recurrence than those treated by gradual dilatation. Indeed, unless followed by persistent dilatation they are subject to early relapse.

Third: That gradual dilatation of urethral strictures, though of slower progress in the beginning, is almost entirely free from danger, more permanent in its results, and upon the whole the shortest and most perfect method of cure.

Fourth: That in the treatment of tight urethral strictures the *Multiple Wedge Principle* devised by the writer, viz: That of introducing side by side and one at a time successively a number of filiform bougies, whether applied to the interrupted, or the continuous method, offers to the surgeon the easiest, safest and best method for effecting the solution, or *absorption* of the inodular tissue, and for removing the obstruction.

J. LEWIS SMITH ON CONDENSED MILK.—Condensed Milk is largely used in the feeding of children. The milk is condensed under vacuum to $\frac{1}{3}$ or $\frac{1}{4}$ its volume, heated to 100°C. (212° F.), to kill any fungus which it contains; and 38 to 40 per cent. of cane sugar is added to preserve it in cans. In the first month one part of the milk should be added to sixteen of water, and the proportion of water should be gradually reduced as the infant grows older. The large amount of sugar which condensed milk preserved in cans contains renders it unsuitable in the dietetic rôle of the summer diarrhœa of infants. The sugar is apt to produce acid fermentation and diarrhœa in hot weather.

Borden's condensed milk, fresh and dispensed from the wagons, contains, I am informed by the manager, no cane-sugar or other foreign substance, and on this account is to be preferred. It is cow's milk of good quality, from which 75 to 79 per cent. of the water has been removed under vacuum. The sole advantage which it possesses, and it is an important one, is that it resists fermentation longer than the ordinary milk.—*Archives of Pediatrics*, July.

DR. SQUIBB ON RECTAL ETHERIZATION.—A new fashion has lately been introduced of producing anæsthesia by the introduction of ether vapor into the rectum and colon, and however irrational and unpromising, it soon found numerous followers. The result is that although several lives have been sacrificed, even in the short time since its introduction, it is still practised and recommended. The absorption of ether vapor by the walls of the intestine must necessarily be irregular and uncertain, in consideration of the known phenomena of local anæsthesia, for if the walls be thoroughly paralyzed and relaxed by the anæsthetic, the contained vapor might as well be in a distended bladder outside the body. But if no obstruction by fæces or by spasmodic contraction should be present, and the vapor should pass far up in moderate quantities, insufficient to do more than stimulate the parts, the absorption might be very rapid. In short the conditions of such an application are so little known and so little under control, and are so far beyond the reach of observation, that for the present, at least, the method is irrational and unjustifiable.—*Ephemeris*, July.

COMMUNICATION OF SCARLATINA THROUGH A LETTER.—Dr. Assmann, of Wohlan, reports that the family of an officer, residing at Dantzic, received a letter, giving an account of a case of scarlatina. The envelope of the letter was accidentally given to the yougest child to play with, and in six or seven days it had an attack of scarlatina, and within an interval of two or three weeks two of the other children contracted the disease. The conveyance of the disease by the letter acquires additional confirmation from the fact that for six months prior to the occurrence of the outbreak no case had occurred in the place.—*Med. Times and Gazette.*

THE MORTALITY OF MARRIED LIFE.—The *Journal of the American Medical Association* cites some rather remarkable statements from an address delivered by Dr. William Pratt, of London, as follows:

"According to statistics the married life is not only the purer, producing the minimum of evil-doers and criminals, but it has also by far the most health. Take the male sex, and it is seen that from twenty-five to thirty years of age one thousand married men furnish six deaths; one thousand bachelors furnish ten deaths; one thousand widowers furnish twenty-two deaths. The figures, however, become very unfavorable if the marriage be contracted before twenty. Out of eight thousand young men married before twenty their mortality has been found to be, before marriage, only seven per one thousand; after marriage, fifty per one thousand. With respect to the female sex we find a similar advantage of marriage over celibacy, but on the same condition. If young girls be turned into wives before twenty a like mortality befalls them which befalls the other sex. Everywhere young married people from eighteen to twenty years of age die as fast as old people from sixty to seventy years of age. The common sense and common law of Western Europe have with perfect justice marked twenty-one as the age of maturity. After that epoch, however, marriage should be contracted as soon as practicable. It is the healthiest and the happiest life; the best for the individual and the community."—*Boston Medical and Surgical Journal.*

A CURE FOR NITRIC ACID BURNS.—Prof. A. Irving in the *Chemical News* recommends the use of a dilute solution of sulphurous acid as an application to surfaces burned by nitric acid. He claims that this solution will speedly reduce the caustic action of the nitrica acid, thereby arresting pain and cutting short any further destruction of tissue.

RESECTION OF THE PYLORUS.—On Monday of this week resection of the carcinomatous pylorus and adjacent stomach wall was performed at the Maryland University Hospital by Dr. Randolph Winslow. Unfortunately the patient did not react from the profound shock incident to so prolonged and severe an operation and died in a few hours after she was placed in bed. It is proper to note that the operation was undertaken at the earnest request of the patient, who was starving to death from inability to retain or digest food of any kind, and that the surgical staff of the Hospital concurred in the opinion that the patient was entitled to the slight chances for life and comfort which an operation offered. We believe this is the first time this operation has been performed in America. It has been performed a number of times in Europe with marked success for so grave a procedure.

DR. KOCH ON THE TREATMENT OF CHOLERA.—In a lecture delivered at the request of the Lyons authorities, on cholera, Dr. Koch exhibited specimens of the bacilli which, he said, were killed by acidity or dryness. Three hours of dryness he thought were mortal to them. He thought opium was the best remedy for early treatment, with strong stimulants later. He thought carbolic acid the most efficacious antiseptic, and placed no confidence in chloride of zinc, sulphate of iron and mercury. He claimed that cholera rarely attacked those whose stomach and intestines were healthy. Fear, he said, was a great disposing cause among the healthy, since it at once affected these organs.

PRESBYTERIAN EYE, EAR AND THROAT CHARITY HOSPITAL.—The attendance at the dispensary of this institution aggregated 1,521 for the month of July, with the admission of 289 new cases, an average of 56 patients for each day. The new building is progressing very rapidly, and, now that it is under roof, will be pushed forward to completion by a heavy force of workmen. The five-story front, of pressed brick, with red-stone facings, makes a very handsome appearance. The building when finished will not only be one of the most useful, but one of the most attractive on Baltimore street, our chief thoroughfare.

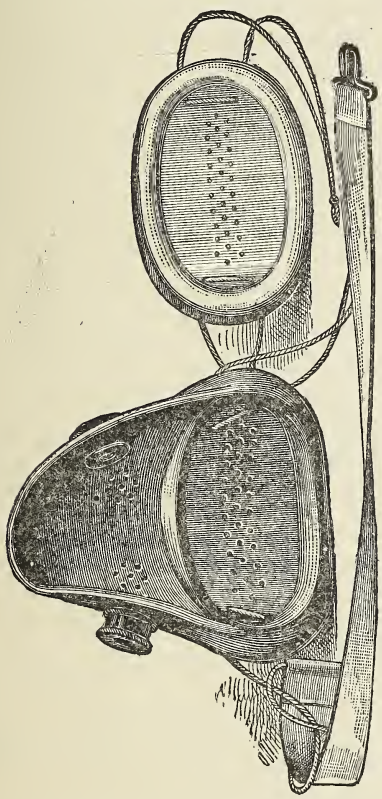
Two doctors of Marseilles have succeeded in discovering the morbid agent of Asiatic cholera, which, according to their statement, is a "*mucor*" entirely distinct from the "*comma*" of Dr. Koch. Considerable amusement was created at the Academy when the perpetual secretary, Professor Beclard, exhibited the sealed box which contained preparations and specimens of the offending "*microbe.*" Amidst a general burst of laughter the president was requested "to keep the box sealed." Thus does the spirit of Comedy invade the ground of Tragedy, even in the most serious of human affairs.—*Lond. Med. Times.*

STATE SANITARY CONVENTION.—The following are announced to read papers on sanitary subjects at the Maryland State Sanitary Convention, to be held at Blue Ridge Mountain House, Sept. 17th and 18th, 1884: Col. Geo. E. Waring, Mr. Rudolph Hering, C. E.. Dr. C. H. Ohr, Mr. Chas. H. Latrobe. Dr. Jackson Piper, Dr. Geo. H. Rohé, and Rev. Dr. Wm. F. Gardiner.

New Instruments.

COMBINED RESPIRATOR AND INHALER.

The need of a simple, clean and cheap Respirator has long been felt by the profession, and attention is therefore called to one lately introduced by David Genesee, D. D. S., of Baltimore, and well represented in the accompanying photo-electrotype illustration,



which it is believed will meet the above requirements and at the same time prove highly efficient. It is composed entirely of pure Para rubber and can therefore be relied upon as thoroughly clean and non-absorbent, as the soft rubber part is also vulcanized, not acid cured. It is so constructed that the inhaled air cannot get into the lungs without being purified and freed from dust, while the exhaled air is instantly expelled by two valves of hard rubber, which are self-cleaning and placed directly under the nose, preventing contamination of the contents of the respirator.

It occupies very little space upon the face and therefore for administering chloroform and ether, will be found very convenient; it can be arranged to administer an anæsthetic mixed with air or without.

It will conform to any face as it is plastic and has a beaded rim to make it fit air-tight around the nose and mouth. The illustration shows two forms of the instrument; the lower intended to cover both mouth and nose, the upper the mouth only.

It is manufactured by the Maryland Meter & Mfg. Co., No. 22 & 24 Saratoga St., Baltimore, under the patents of Dr. Genesee in the U. S., Great Britain, Canada and France. For sale by all Druggists, Surgical Instrument Makers and Rubber dealers. Price $4.

Medical Items.

The cholera epidemic is rapidly declining, and a feeling of confidence is being restored in Toulon and Marseilles. Many of the inhabitants have returned to their homes. It was stated by Dr. Fauvel, before the Academy of Medicine some weeks ago, that this was a mere local outbreak and that it would die out where it was born. The facts tend to confirm this opinion.=Mr. Earnest Hart has pointed out the fact that the mortality in London in some foggy weeks was as great as it would have been during the prevalence of a heavy cholera epidemic.=Mr. Victor Horsley, B.S., F.R.C.S. Eng., Assistant Professor of Pathology in University College, has been elected by the Senate of the University of London, Professor Superintendent of the Brown Institution, to succeed Dr. Roy, recently transferred to Cambridge.=Cholera germs require an alkaline medium for their development. For this reason it is suggested that acids should be used freely by those exposed to the disease. Aromatic sulphuric acid has proved to be the most efficient prophylactic ever tried.=Up to the time of writing about 2,200 people have perished by the cholera epidemic in Southern Europe.=Under the present management, Cambridge, England, is rapidly becoming a favorite University for obtaining medical and surgical degrees. The same can not be said of her sister University, Oxford.=M. Pasteur has been awarded a gold medal by the Societé Centrale pour l'Amelioration des Races des Chiens for his work on Rabies =Saint George's Hospital, London, has recently received a bequest of $500,000 from the late Mr. William King.=Sir Henry Thompson recently presented to the Museum of the Royal College of Surgeons his valuable collection of calculi, the result of 812 operations, both lithotomy and lithotrity.=The National Board of Health held a meeting in Washington on July 30th, and elected the following officers: President, Dr. James L. Cabell, of Virginia; Vice-President, Dr. Stephen Smith,

of New York; Secretary, Col. George E. Waring, of Rhode Island.=Three members of the Vienna medical faculty have died recently, Prof. Arlt, Dr. Kolisko and Dr. Massari.=Prof. Robert E. Rogers has resigned the chair of Chemistry in the Jefferson Medical College.=The *Pacific Medical and Surgical Journal* and the *Westen Lancet* have consolidated under the editorship of Dr. Whitwell.=Collodion applied in successive layers until a sort of cuirass is formed, solid enough to withstand movements of the chest, is recommended by Dr. Rigaud for the pleuritic pains of phthisis.=The Boston *Journal of Chemistry* states that a solution of the following ingredients: Borax, ʒ iss; salicylic acid, grs. xii.; glycerine, ʒ iii.; rose water, ʒ vi., placed upon a granulation surface, will prevent the scars from appearing at all unsightly.= Excessive sweating of the feet, it is claimed, may quickly be cured by carefully conducted friction with the subritrate of bismuth.=Dr. George Zaber records at length a case in which tubercle bacilli were found in the sputa, but in which after death no tuberculous process at all was found in the lungs.—*Medical Record.*=The Illinois State Board of Health is now engaged in revising the "Register of Physicians" for that State. Any changes or corrections should be promptly sent to the Secretary.=The British Medical Association held its fifty-second annual meeting in Belfast, Ireland, last week, and according to the *Med. Record's* cabled report, was a most successful affair, not only in point of attendance, but as to the subjects of scientific interest which were discussed.="Dr. Sheard, Prof. of Physiology in Trinity College, Toronto, has," says the *Canada Lancet,* "joined the great army of Benedicts, and has gone with his bride to Baltimore. He will visit the Johns Hopkins University and look into their methods of investigation and instruction in physiology and pathology." The Doctor has shown excellent taste and judgment. Baltimore is a charming place to pass the "Honeymoon," and a glorious place to study physiology and pathology.=Dr. S. T. Frank, a well-known and highly respected oculist, practicing in this city, has recently announced his intention of withdrawing from the practice of his profession. We understand Dr. Frank has been induced to take this step by reason of large private interests which demand all his time and attention.=According to the London *Lancet,* Drs. Klein, F.R.S., and Heneage Gibbes have been ordered by the British Government to proceed forthwith to India to pursue a scientific inquiry into the nature of cholera.=The University of Heidelberg is about to celebrate its 500th anniversary. The Baden parliament has appropriated $40,000 towards the expenses.=The *Lancet* well says that "the therapeutics of cholera rest mainly in the direction of prophylaxis, careful selection of food, and the treatment of the premonitory diarrhœa."

AN IMPORTANT LEGAL DECISION IN FAVOR OF THE MEDICAL PROFESSION.—An important legal decission was recently rendered in one of the Western states which may have a very important influence in preventing suits for damage from malpractice. Two surgeons had been employed in a case, but in different ways and for different compensation. The patient not being satisfied with the treatment refused to pay either of the bills rendered. A suit was brought by one of the surgeons and a judgment was given in his favor by the court. The patient then brought suit for malpractice, but the surgeon put in as defence that this question had been adjudicated in the previous suit and could not be again raised. This defence the court held to be a good one, deciding that the former suit was a bar to the second one. According to this decision a surgeon need not fear a suit for damages from malpractice if the value of his servises have been acknowledged in a suit to recover the amount of his bill. In other words the surgeon may possibly forestall a suit for damages from malpractice by instituting a suit for the amount of his professional services.

CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT, U. S. ARMY, from July 29, 1844, to August 4, 1884:

Head, John F., Colonel and Surgeon, ordered to Portsmouth, N. H., to meet the Greely party and consult upon the proper course of treatment, with a view to the entire restoration to health of Lieut. Greely and the men of his command.

Wright, Joseph P., Major and Surgeon, sick leave of absence extended three months on surgeon's certificate of disability.

Woodward, Jos. J., Major and Surgeon, sick leave of absence extended six months.

Taylor, A. W., First Lieutenant and Asistant Surgeon, ordered for temporary duty at Fort Riley, Kansas.

Gandy, C. M., First Lieutenant and Assistant Engineer, granted leave of absence for one month, to commence between August 15th and 30th, provided he furnish medical attendance at Fort Brady, Michigan, during his absence.

CHANGES IN THE MEDICAL CORPS OF THE U. S. NAVY during the week ending July 26:

P. A. Surgeon G. E. H. Harmon ordered to temporary duty at the Norfolk Navy Yard.

Original Papers.

CHOLERA INFANTUM.

BY T. E. McARDLE, M. D., WASHINGTON, D. C.

Read before the Medical Society, District of Columbia.

Of all the diseases which prevail among children in this city one of the most fatal is cholera infantum. In looking over the reports of the Health Office I have been struck by the number of deaths attributed to this cause. For the last ten years the mortality from this disease has been greater than from any other of the zymotic class. From the first of May to the first of October of this year (1883) 168 children have perished on account of this dread malady. Making due allowance for errors of diagnosis, the death record is too large when we take into consideration that miasmatic zymotic diseases are preventible. It would lessen the reproach to us if some means could be discovered by which infants may be saved from incurring the dangers of this worst of all maladies. It is with the hope that some of the older and more experienced members of this society will devise some means of lessening the frightful mortality that I introduce the subject here this evening. My experience with cholera infantum has been very limited, but it has been sad enough to make me wish that I could have afforded more relief than I was able to do. I presume that I have seen the usual number of ordinary diarrhœal diseases in children, and, fortunately, most of them got well; but I think there is as wide a distinction between these and cholera infantum as between cholera morbus of the adult and Asiatic cholera. I know it is contended by eminent pædiatrici that there is no other difference than the grade of morbid process. They say the distinction is one of degree rather than kind. That, moreover, it is not always easily determined where entero-colitis terminates and dysentery begins, or where cholera infantum ends and entero-colitis commences. I believe with Trousseau, however, that cholera infantum is entited to a distinctive appellation, for I think it is so well marked by a group of symptoms as to present in typical cases the clinical features of a well-defined disease. And now comes the question, What is Cholera Infantum? It can be defined only by an enumeration of its characteristic features. These are its occurrence in very young children and in the summer months; the evidences in the early stage of violent irritation and hypersecretion of the gastro-intestinal mucous surface, or, in the severer cases, of a transudation through it. Its chief symptoms are vomiting and purging, considerable febrile excitement, varying often with collapse, rapid emaciation, and, toward the close, violent cerebral symptoms.

Early life—the first two years—owing to the various phases through which the organism is then passing, is the period for cholera infantum.

It is universally agreed that this disease is most frequent and fatal in the months of July and August, that it is less so in June and September, and that in May and October it is seldom met with. This fact would lead us to suppose that the heat of summer constitutes a powerful predisposing cause of the disease. Something more, however, is necessary for the production of cholera infantum than an elevated temperature, filthy streets, squalid lodgings and personal uncleanliness. As has been well said: "This disease is not peculiar to the children of the poor or to the habitants of the narrow and foul alleys, or to the dwellers in the illy-ventilated and stinking tenements of populous cities. It invades the palace of the rich, the fashionable thoroughfares where dwell the families of leisure and affluence. Nor is it confined exclusively to the illy and improperly fed, to the early weaned, the harshly treated, or the imprudently exposed, for all these causes are, presumably, of as frequent and constant occurrence during the winter as during the summer; yet it is during June, July, August and September that the widespread epidemics occur." But although thus manifestly connected with high atmospherical heat, cholera infantum cannot be said to be the product of this alone; for, otherwise, it ought to increase in violence in proportion to the warmth of the climate, or as we advance South, which is not by any means the case. I believe it is a more common disease in Boston than in Charleston; certainly it is more so in Philadelphia than in New Orleans. One of the best explanations is that offered by Dr. Jno. Bell, who says: "The system of a child on the approach of its first and even second summer is very much in the same condition as that of a person newly arrived from the North in a Southern city. The susceptibility to heat being great, its effects are felt

more sensibly on the nervous system, which it excites, and through it on the vascular system, and even still more the tegumentary: the skin first and afterwards the mucous membranes. These last are kept in a state of irritation short of phlogosis by the high and continued heat acting on the skin; and the digestive ones, in their turn, transmit the irritation to the liver, which is often excited in consequence. Now, if in this state of predisposition the person be exposed to close and impure air, the circulation and nervous system become more and more disturbed, and there is the very imminence of violent disease, which only requires for its coming on an excess or irregularity in food, loss of rest, or any morbid excitement of the nervous system, whether from bodily pain or mental anxiety. In a child the disease will be cholera; in an adult bilious remittent fever or yellow fever. In both there will be great gastro-enteric disorder, with hepatic and cerebral complications." The destructive agent is the high heat following winter's cold, acting for the first time on an infant whose functions have barely acquired the necessary rhythm—certainly are not accustomed to such stimulation.

The organism suffers more often and more severely from the sudden changes than from the long continuance of either extreme heat or cold. The infantile organism, which may have become habituated to the ordinary diurnal changes of summer heat at any given locality, can neither accommodate itself to the rapid loss of heat when the temperature suddenly falls, nor to the arrest of heat radiation when the sudden exacerbations occur and continue for two or more days. In either case injury follows, but, as a well-known author (Busey) says: "It would be contrary to the general law of causation that the resultant diseases should be identical. It may be, as would seem to be the natural order of events, that the choleraic forms, in a measure at least, owe their origin to the overheating, and the catarrhal forms of diarrhœal disease to the chilling processes." I believe cholera infantum is due to the action of intense prolonged heat upon the sympathetic system, vascular tension is lessened, and there is a consequent outpouring of the fluids of the body, followed by extreme exhaustion, and in a majority of cases death ensues.

Dentition is believed to be a most powerful predisposing cause of this disease. The aggravation of disease by the irritation of teething is manifest to every physician. It aggravates bronchitis in winter and cholera in summer; it might even be said to cause them, by inducing a morbid susceptibility to cold and moisture in the former season, and to great heat in the second, without which these atmospherical extremes would be relatively innocuous. But that teething is only of secondary importance in the etiology of cholera is manifest from the fact that, however suffering from this irritation at other seasons, rarely will children then have cholera.

The same reasoning applies to weaning and the additional irritation to which the digestive system of the little being is exposed by new and unaccustomed articles of food in the stomach. Still, that weaning or the privation of breast milk is an active contributing cause is shown in the greater proportion of children attacked at this time over those which continue to be suckled.

It would appear that the disease is more common in males than in females, and there can be no doubt that it is most apt to occur in feeble, delicate children, and in those of a nervous, irritable temperament.

Hereditary predisposition is said to play a part in the causation of this disease. It would seem probable that this peculiarity, if it exists, must depend on the fact that the constitutions of some families are particularly disposed to disorders of the digestive apparatus.

Henock says: "Definite forms of bacteria to which the infectious character can be attributed have not been found. But we may hope from further investigations for more satisfactory results, if we take into consideration the cases of intestinal mykosis reported in literature. These rapidly fatal choleraic diseases appear to be produced by fungi like those of splenic fever, and are found not only in the intestinal contents, but also in the epithelium and submucous tissue of the intestines, whence they have migrated into the blood vessels and lymphatics. At present, however, we can regard the mykotic theory of cholera infantum as a very probable hypothesis. There is no doubt that high atmospheric temperature increases the tendency to fermentative dyspepsias which are present in imperfectly nourished children at all seasons, and causes them to appear not only epidemically, but also in an extremely acute form, which is

not frequent under ordinary circumstances. This would lead to the conclusion that, in addition to the heat, infectious germs are present, which, being developed in great masses by the former, enter the stomach with the food and further the process."

I shall not enter into a lengthy discussion of the pathological lesions, but merely say that the morbid phenomena have their localized beginning in the intestinal mucous membrane.

No characteristic appearances are found in autopsies upon these children. Dr. Hallowell stated that in patients who died during the second stage, that is before the appearance of dangerous cerebral symptoms, the lungs presented nothing remarkable beyond a slight engorgement posteriorly; the peritoneum presented its usual healthy color in all the cases observed; the liver was greatly enlarged in but a single instance, contrary to the statements of most authors, who affirm this to be uniformly the case; the gall bladder was more or less distended with dark colored bile, staining the finger a deep yellow; the mesenteric glands were not enlarged; the spleen and kidneys presented nothing remarkable. In regard to the brain, he states that in most of the cases the views of the pia mater were more or less distended and the membrane injected also, but that the injection was generally confined to the larger ramifications; the substance of the brain presented injections of the central portion in one, and of both the central and cortical portions in another. There was softening in four cases, and little or no effusion into the ventricles.

In patients dying in the third stage with stupor, convulsive movements, rigidity or paralysis, there were found, in addition to the morbid appearances already described, disorganization of the structure of the brain from softening of its tissue. The substance of the brain commonly presents numerous red spots from effusion of blood; the pia mater is more or less injected and its veins much distended; and there is in some cases, but not in all, serous effusion into the sub-arachnoid tissue and lateral ventricles.

It is not worth while for me to waste your time in speaking of the symptoms. We are all familiar with "their sudden onset; their marvellous haste towards decisive and calamitous results; their terrible ravages, speedily expressed in the rapid prostration and exhaustion of the physical and vital powers."

With regard to the treatment, I am at a loss what to say. There is no specific against cholera infantum. To arrest the flux is not to cure the disease, for death is often preceded for hours by a partial or complete cessation of the diarrhœa. Inanition and exhaustion are the the ominous harbingers of death, yet we invite them and more serious disturbances when we endeavor to force food into a stomach which refuses to retain it or which forces it through the pyloric orifice before it has undergone the preliminary process of digestion.

Believing, as I do, that heat is accountable for so much of the trouble, the first relief to be afforded is to make the patient as cool and comfortable as possible. For this purpose the child should have all its clothing removed with the exception of a linen slip. "One of the most important remedial agents is the cold bath. The child should be very gently and carefully immersed in water at 95° to 100° F., and the cold water gradually added until the thermometer stands at 85° or 80°, or even 60°, if well borne. The duration of this bath should be about 10 minutes, and the frequency of the repetition depends on its influence. Two or three baths may be required during the day.

The administration of pure cognac brandy in a small quantity of very cold water is an excellent means of checking the vomiting and purging, and of lessening the abormal heat."—(*Bartholow*). In many cases stimulation should be thoroughly pushed, and it is wonderful what an amount of brandy can be consumed by an infant sick with cholera infantum.

As regards the food of the patient, simplicity is to be our first and chief study Milk must be regarded as the child's principal aliment. Once in two, two and a half, or three hours, according to the age, is often enough for it to be fed, and only a small quantity should be allowed at a time. Instead of large draughts of water, the patient should suck some pieces of ice.

"In order to allay the gastro-intestinal irritability and to quiet the peristaltic contractions, no medicine is comparable to the sub-nitrate of bismuth. It is a direct sedative to the mucous surface, and may also subserve the purpose of forming a protec-

tive covering. In giving opium which is the most certain remedy for relieving spasm and quieting the peristaltic contraction, we must also remember its anexosmotic property—that is the power of preventing the flow of liquid through the intestinal walls into the canal. Both bismuth and paregoric should be given in doses large enough to produce marked effect upon the frequency of the stools."

Small doses of calomel, from the $\frac{1}{15}$ to the $\frac{1}{6}$ of a grain, according to the age of the patient, have been administered every two or three hours with good effect. By this means the diarrhœa, as well as the tendency to vomit, has been controlled.

Tannic acid, pepsin, nitrate of silver, chalk mixture, tincture of rhatany, and many other drugs have been highly recommended. Many seek to rouse the cutaneous circulation by the application of mustard plasters. Mercuric chloride has been assigned by some the first place among the remedial agents in cholera infantum. It is given on account of its value as an antiferment. For, they say, while the high summer temperature greatly debilitates the nervous system and weakens the digestive power, yet the first place as factor in this disease should be assigned to the advanced condition of infusorial and bacterial spores possessing or carrying with them putrefactive powers. It is contended also that too much stress cannot be laid upon the fact that articles used for the infant's food and the drinking water (which latter is to be used only after boiling and cooling) should, under no circumstances, be kept in an ice-chest or closed cupboard.

But that which interests us most is the guarding of children against attacks of cholera infantum. I think this is most effectually done by sending them out of town at the approach of hot weather whenever the means of the parents will permit it. If this be not feasible, we should insist that they spend as much time as possible in the open air, and be sent upon short excursions into the country and upon the water.

"The indispensable condition for the avoidance of this disease is the access of fresh and cool air both to the lungs and skin. If the children cannot be taken out of the city, parents should so manage that their children shall enjoy early in the morning the air of some of the public squares of the city. The period of greatest trial and greatest suffering of children in the cities, and particularly in the less favored parts, is during the night. Slight as the change may be, it is desirable to allow the free access of the outer air during the night to the bed-room. If the inmates do not gain a cooler they at any rate breathe a fresher, a more elastic air. Attention should be paid to the minor, though far from unimportant economy of the sleeping room, respecting the bedding, which should consist always of a mattrass and a hard feather or hair pillow. A child tossing about in feverish heat on a feather bed, or buried under a load of clothes, will often be revived at once and restored to sound and refreshing sleep by putting it on a folded sheet, which again rests simply on a piece of matting or floor cloth, and by throwing a light coverlid or sheet over it.

"Another and a valuable resource is afforded to all classes in the use of a bath. Water and a wash-tub are the only conditions required for this purpose. Regularly every morning during the summer season ought the child to enjoy the benefit of the shower bath, given by pouring over it a bucket or even a pitcherful of water while it is seated in a tub of any fashion. There are cases of great delicacy of frame and nervousness in which it is proper to raise a little the temperature of the water for the bath, so as to render it tepid or slightly warm. After a morning bath the child is better able to bear without suffering the great heat and close air of its lodging, should it unhappily be thus restricted. Friction assiduously practiced on the whole skin, especially along the spine and on the abdomen, chest and lower limbs, ought to follow the bath. If reason and proper conscience be allowed to rule the conduct of the mother to her child at this time, she will be zealously watchful that nothing is taken into its mouth but what in the opinion of prudent advisers, and from her own positive experience, will contribute to its nourishment with the least fatigue to the stomach and distress of any kind to other parts. Whim, vulgar rumor, or ignorant suggestion must not sway her in a single particular on this subject. The slightest deviation from its plain and simple and wholesome food may be attended with consequences as fatal as if her child had swallowed poison. And, in fact, any kind of food or cake or fruit not adapted to the

state of the stomach and power of digestion at this time is a poison, and they who advise and she who administers it are guilty of poisoning."—(*Bell.*)

707 12*th St.*, *Washington, D. C.*

EPILEPSY.

BY WILLIAM PEPPER, M. D., LL.D.,

Professor of Principles and Practice of Medicine, University of Pennsylvania.

Abstract of Paper, read before the Section on Practice of Medicine at American Med. Association.

In a purely clinical discussion of epilepsy our conception of the disease must be a broad one. Strictly, cases of organic disease should be excluded. This is, however, sometimes difficult. There is no trouble in those instances in which the common symptoms of brain tumor are present, but in those cases in which epilepsy follows sunstroke, the distinction is not so clear.

Hysteria should also be excluded. While typical epilepsy and typical hysteria are readily distinguished, yet there are many facts showing their analogy. A case was then quoted of hysteria associated with neurasthenia, apparently dependent upon membranous enteritis, with great prominence of the vaso-motor symptoms, and the appearance of crops of stigmata before the attack.

Both epilepsy and hysteria represent conditions of malnutrition with morbid sensibility and irritability of nerve tissue brought about in the most varied manner. In hysteria it would seem that the ganglionic nervous tissue is especially vulnerable, and the gray matter within the encephalon less so, though instability of this may co-exist. An attack may be induced through violent disturbance of ganglia controlling intra-cranial circulation and consequent discharge from unstable gray centre in cortex or elsewhere. Epilepsy would seem to depend upon a supremely unstable condition of one or more areas, of the gray matter within the encephalon, rendering it liable to sudden and violent discharges. This instability may be brought about in very varied manner. The most prominent influences are, heredity, nervous exhaustion, as from overgrowth, over-strain or exhausting illnesses, shock or sudden powerful impressions, as from physical injury, with or without distinct lesion of cranial bones, sunstroke, purely psychical shocks as from fright, instability of circulation, with disturbed nutrition of the brain as in heart disease, and in connection with heart disease there is a possibility of minute embolisms interfering with the nutrition of small areas, prolonged peripheral irritation, especial reference being made to chronic catarrhal irritation of the gastro-intestinal tract. A consideration of these points teaches that those cases grouped under the name of epilepsy are not afflicted with a single definite disease, but they exhibit in common merely a state of impaired nutrition and morbid instability of the gray matter, varying greatly in different cases. In some cases there are probably minute molecular changes in the nervous tissue. In a large number of cases, however, the recurring convulsions are connected, not with irregular advancing morbid tendency, or irregularly progressive anatomical change, but with occasional and irregular operation of those widely different causes, which are calculated to disturb the weak centre and induce explosive discharges.

The evil effects of habit are prominently exhibited in this disease, so that if the instability cannot be reduced and the provoking causes removed, the attacks will be more and more readily induced, until they will at last be excited by almost imperceptible causes.

It is important to recognize the degree of instability in these cases. Every one is liable to convulsions; it is merely a question of the provoking cause required. Provoking causes cannot be found in all cases of epilepsy, but the more closely they are sought for, the more frequently will they be found. A careful study in this direction is of the greatest importance in every case.

Among the most frequent provoking causes may be mentioned indiscretions in diet or improper food. This may act in different ways, by exciting local irritation of the mucous membrane which will act in a reflex manner, or it may induce a condition of toxæmia from the admission to the blood of imperfectly elaborated elements, or from the failure of the emunctories to remove some product of malassimilation. In many of the cases seen by Dr. Pepper, the attacks bore a close analogy to the spells of vertigo induced in lithæmic patients by indiscretions of diet. In this connection allusion may be made to the fact that the

injection of the normal digestive ferments into the general circulation, is capable of inducing serious nervous symptoms, even convulsions and death.

Scarlatina is frequently followed by epilepsy. In some cases this is explained by the tendency to wide spread tissue change, so that impaired nutrition of the gray matter might be expected to occur at times. In other cases this disease may act by leaving such a degree of renal insufficiency as will under comparatively slight causes lead to toxæmia, from the retention of malassimilated materials. It does not seem necessary that such a condition should reveal itself by the presence of albumen in the urine, although Huppert states (*Archiv. fuer Psychiatrie*, 1877, p. 169) that immediately after an epileptic attack albumen is almost invariably present, and hyaline tube-casts can frequently be found.

In those cases in which the morbid state of the nervous system has been brought about by sunstroke or exposure to excessive heat it will be often found that attacks will be induced by undue exposure to the rays of the sun, or even to intense light. When the nervous instability is associated with cardiac lesion, I have frequently noticed that muscular exertion or excitement of the circulation directly induced the attacks. In all cases mental excitement or too close application, or sexual excess, will favor the occurrence of the seizures. These causes are operative on account of the constitutional susceptibility.

It is often stated that epileptics are in full health. This certainly does not accord with my experience. Careful study has usually shown some derangement or impairment of important functions.

The principles of rational treatment must follow from such considerations as the above. No one plan of treatment is applicable to all, or even to a large majority, but each case requires separate study and a special line of treatment.

The primary cause should be removed if it can be discovered, and the same is true of the provoking cause. The leading principles of treatment are to relieve anæmia, neurasthenia and morbid susceptibility by diet, change of occupation, change of residence and rest. Intestinal irritation should be removed, especial reference being made to an absolute milk diet long continued. Other special forms of diet are required in certain cases. Nitrate of silver is of a particular value in those cases where gastro-intestinal irritation is a prominent condition.

Over-exertion should be avoided in all cases and especially in cardiac cases. Excitement and over-exertion of mind should also be guarded against.

Counter-irritation should be employed, the best effect being obtained from the actual cautery, and this is of special value in those cases where definite intracranial irritation is suspected, as after insolation. The cautery occasionally exerts a good effect in organic cases.

Trephining is valuable in a considerable number of cases, when circumscribed lesion of the cranial bone is suspected.

The removal of genital irritation is important, the question of circumcision being the most important. Its value has, however, probably been overestimated.

It is important to arrest the attacks if possible for their continuance strengthens the bad habit, and renders subsequent attacks more readily developed. The use of the ligature to arrest the aura, nitrite of amyl and other expedients may be employed. Various drugs are to be recommended such as the bromides, belladonna and assafœtida, enemas of chloral, iron and other tonics. The great value of the bromides is recognized, but caution is to be given in regard to their frequent failure, their abuse and their dangers.

The danger of drifting into a routine treatment is greater, and its results more disastrous in this disease than in any other.

Selected Paper.

THE TREATMENT OF SYPHILIS.*

BY A. NEISSER,

In the *Deutsche Med. Wochenschr.*

In connection with this much-disputed topic, the only positive rule which it is possible to lay down, is, that the treatment of syphilis should always be in strict accordance with what is known concerning the essential nature of the disease. As respects the latter point, our ideas within the last few years have undergone considerable change—or rather have become more settled. The

*Taken from the *Jl. of Cutaneous and Venereal Diseases*, for August, 1884.

most industrious and skilful investigations have hitherto failed in detecting the actual virus of syphilis, but I entertain not the slightest doubt that it is an *organized product*, and I regard the discovery of the *syphilitic bacteria* as merely a question of time. Thus far, their existence is only an assumption; yet on such firm grounds does this assumption rest that it must necessarily exercise an influence on our conceptions of the malady. And in fact, all the peculiar features ot syphilis—its infectivity, its symptoms, and its transmission by descent—can be shown to harmonize precisely with the theory of its bacterial origin.

This being regarded as settled, three questions come up for consideration in relation to our special theme. These are—When should the treatment of syphilis be commenced? What method of cure should we adopt? How long should the treatment be continued?

1. *When should the treatment of syphilis be commenced?* I reply—*not before we are quite certain of our diagnosis.* This may seem a mere truism, yet it is one which I am called upon to emphasize, in view of what we all know to be a very prevalent practice. There are many physicians who look upon every sore arising from sexual intercourse as syphilitic, and proceed at once to attack it accordingly. This is the result neither of faulty diagnosis nor of recklessness, but of too strict an adherence to a certain general theory—the theory, namely, which regards the virus of the soft chancre as identical with that of syphilis, and the difference between the symptoms of the two disorders as caused merely by a difference in the affected tissues, or by some other accidental circumstance. Now, as between this opinion and that of the *dualists*, I have no hesitation in expressing my most decided agreement with the latter—i. e., with those who look upon the above mentioned diseases as entirely separate and distinct, as caused by different poisons, and their co-existence in the same subject as due to a simple coincidence. And in renouncing the unitary conception of the disease, of course I reject also its legitimate result—the immediate treatment of all venereal ulcers. Nevertheless, instances are frequently encountered in which this immediate treatment, in anticipation of a certain diagnosis, is resorted to even by professed dualists. I refer to those cases where a soft chancre is succeeded speedily by an outbreak of genuine syphilis—i. e., after an incubation of three weeks, by first a primary sore, and then, in due succession, by the other characteristic phenomena of the disease. But even this occurrence does not justify a departure from the rule I have announced, for it should be considered as really due to the combined operation of two different poisons, that of soft chancre and that of syphilis, whose germs have been accidentally deposited at the same time in the same subject, and both of which have run their typical course. Therefore (if we adopt the dualistic view) the existence of a soft chancre is not to be depended upon as affording the slightest evidence that real syphilis is about to follow, or as constituting a sufficent ground for resorting to specific medication. This latter should be instituted only when unequivocal signs of syphilitic infection have manifested themselves. The observance of this precept will no doubt often result disagreeably for the physician, by obliging him to keep his patient for several weeks in a state of suspense and apprehension. *This, however, is a something which must needs be endured until such time as the demonstration of the characteristic bacteria in the chancrous secretion shall enable us to recognize the disease at once*, instead of waiting for the development of its symptoms. *After* this delay, the specific induration generally makes the diagnosis clear, when the affection is situated on the epidermis—as, for instance, on the lips of the urethral orifice. But when seated on the mucous membrane, especially that of the female genitals, it can rarely be identified as a primary syphilitic phenomenon, since here the formation of a sclerosis is anatomically impossible. In this case our decision must be postponed until time enough has elapsed for the supervention of constitutional symptoms.

An aid to diagnosis is often afforded us by the *lymphatic glands* in connection with the part first affected, whatever its location. These glands not unfrequently become indurated almost as soon as the primary sore itself, the difference in time being only that which is required for the passage of the bacteria from the one situation to the other.

But whenever our diagnosis is made, or however we arrive at it, the same rule holds goods—*that our treatment of syphilis should begin just as soon as we are certain the disease is present.* Guided, in this case,

as already said, by our conception of the bacterial nature of the virus, our path lies plainly before us: *we must, as speedily as possible, effect the destruction of the disease-producing germs.* The simplest and most direct means of accomplishing this object would be by the immediate removal of the earliest focus of infection. Unfortunately, for the reasons given above, such prompt action is inadmissible. We must defer the procedure for about three weeks, until the nature of the complaint has been established by its visible manifestations.

But when these manifestations have occurred, *is it not still possible to obviate all risk of constitutional contamination by destroying the chancre itself.* This is what was perseveringly attempted in a variety of ways, until the doctrine gained ground that the local affection was merely the expression of a general disease, and that, therefore, the removal of the former must necessarily be unavailing. It is only recently that the old-time theory and practice have been reverted to, as in full accordance with the bacterial notion of syphilis, and now we direct our efforts to the extirpation of the primary sore, in the hope of thus preventing, at a single stroke, the extension of the mischief. That is, we regard the initial induration as simply *the local focus of infection, as the centre in which the syphilitic virus is developed and from which it spreads, and consequently as the chief, if not the only, source of general contamination.*

Staunch advocate though I am of this method, I must confess that its results thus far have not corresponded with our anticipations. Such excisions have been made in numerous cases, which yet have developed constitutional symptoms. How is this comparative failure to be accounted for? On the ground, oftentimes, in my opinion, that the operation did not succeed in thoroughly removing *all* the morbid germs, but left them behind, here and there, in sufficient quantity to bring about the general infection. But besides this, I believe that, in the majority of such instances, the excision has been made *too late*—constitutional contamination having already occured, although undiscoverable by our present means of investigation. Despite these untoward results, I still regard the procedure in quesiion as an advisable one, and I employ it myself in all cases where it is not forbidden by the localization of the sore on the glans, the corpus cavernosum, the lips of the urethra, etc. In my opinion it is recommended, in the first place, by the rapidity with which healing is established—especially under antiseptic precautions—and secondly, by the possibility (even if it is nothing more) that secondary symptoms may by this means be entirely prevented—a consideration in itself sufficient to justify a resort to so harmless and locally advantageous an operation. I will also suggest that, very probably, reasoning from theory if not from practice, the progress of the disease may in this way be rendered milder, in cases where it cannot be entirely stayed.

On similar grounds, I am strongly in favor of *extirpating the lymphatic glands* when primarily affected, although this is a measure which cannot be so safely attempted by the general practitioner as the simpler one I have just referred to. In the case of a soft chancre, on account of its extremely infectious nature, the excision, if ventured upon at all, must be preceded by a thorough destruction of the specific virus, and accompanied by the strictest antiseptic precautions, if we would prevent the wound from becoming poisoned.

Finally, in deciding upon the feasibility of this operation, we must be governed by the circumstances of the individual case.

When excision is out of the question, or when we have reason to believe that general infection has already taken place, I would advise *that constitutional treatment be at once entered upon.* And here I must express my dissent from those teachings, emanating from the Vienna school, according to which such treatment may be wholly, or almost wholly, dispensed with. Sigmund, in particular, has reported that nearly forty per cent. out of his numerous syphilitic patients got along so well of themselves that they did not appear to require any constitutional treatment. This is opposed, however, to the experience of the French authorities, and particularly of Fournier, who found that the severest forms of secondary syphilis were manifested in those cases where the initial symptoms had been remarkably mild. We are not to conclude from hence that the disease showed increased malignity in its later stage, *because* the primary affection had been of an opposite character; the simple fact was that treatment during the earlier

period, being regarded as unnecessary, was completely neglected, and it is this neglect that must be held responsible for the subsequent aggravation.

This is only one of the numerous instances that might be adduced to show how little confidence can be reposed in statistics with reference to the complaint we are considering. If, in judging the issue thus raised between the above-named authorities, I take the side of Fournier, it is on theoretical grounds only—since, assuming syphilis to be a bacterial disease, I infer that it is best treated by means adapted to remove the micro-organisms and prevent their reproduction without injury to the general system. It is my firm conviction that such an agent is only to be found in *mercury*, and therefore I do not hesitate to say that *every syphilitic patient ought to be brought under the influence of that drug, as soon as the nature of his case is ascertained.*

In view of the harmlessness of this remedy, the maintenance of a passive attitude in reference to the disorder appears to me to involve a positive sin of omission.

But it may be asked, why not rely upon mercury in those cases where there is only a possibility that syphilis may have been contracted—*i. e.*, in every form of suspicious erosion and ulceration? I answer that here, against the bare *possibility* referred to, must be weighed, the *probability* that the course pursued will result, not in the eradication of the malady, but in the temporary suppression of those symptoms by which alone its real character is made known, so that the latter will be merely disguised by a deceptive appearance of restored health. It is unnecessary to insist upon the dangers which may be incurred by the patient and his family through a mistaken or even a doubtful diagnosis under such circumstances. We must, therefore, adhere firmly to the principle proclaimed at the outset of these remarks: *Never to resort to antisyphilitic measures until we are assured that it is syphilis with which we have to deal.*

II. *What method of cure should we adopt?* I regard *inunctions* as the best means of obtaining the antisyphilitic effects of mercury. Mercurial baths I employ only when circumstances forbid the use of inunctions, or when the treatment has to be repeated two or three times successively in the same long-standing case. Muller and Stean's solution of sublimate with soda, or the mercurial peptones, are preferable for subcutaneous injections. When properly prepared, the foramid, lately recommended by Liebreich, is advantageously employed in this way, by reason of its almost absolute painlessness, but has not yet been sufficiently tested as to its efficacy in preventing relapses. For internal use, I prefer corrosive sublimate in small doses. It is best given as a watery solution, with common salt and plenty of milk, so as to lessen its disturbing action on the stomach and bowels. The yellow iodide of mercury is much better tolerated by many patients, but is in great part passed off in the stools.

III. *How long should constitutionla treatment be continued?* This question is easily answered as regards the cases characterized by frequent relapses. Here she use of mercury should be suspended at intervals depending upon the constitutional effects of the drug, the state of the patient's nutrition, etc.; it being also borne in mind that mercury loses its peculiar action when administered uninterruptedly for too long a period. This latter consideration led Fournier to formulate his so-called "alternate and intermitting method," according to which the mercurial treatment is kept up for at least one and one-half to two years, with gradually increasing pauses of from four to eight weeks each, during which iodide of potassium is substituted.

When the complaint has passed into the *tertiary* stage, iodide of potassium is the sovereign remedy—and it must not be given in too small doses. Experience, moreover, has recently established that a combination of this drug with mercurial inunctions is of special value in severe syphilitic affections of the brain and spinal cord. Here, too, we should remember Fournier's maxim "as well do nothing as not do enough," and administer the mercury freely.

But what shall be said of those cases in which the early symptoms are few and mild, and are apparently succeeded by a complete return to health? Does the disease in them remain latent and liable to break out at any time, or is it actually and permanently cured? To this question no general reply is possible, in the present state of our knowledge. No test can be applied, no sign discovered, which may serve as an unerring guide. This being so, I hold that every patient in whom the dis-

ease has thus manifested itself should be regarded *as still a syphilitic and a fit subject for the mercurial treatment just referred to.* This treatment, in short—assisted, when necessary, by iodide of potassium—I would employ in *every* case of syphilis, with but three exceptions, viz., when tuberculosis or severe scrofulosis coexists; when there is a decidedly anæmic or cachectic condition, and finally when the form of specific disease presented is that known as "galloping syphilis." In this last, generally invigorating measures are alone called for, until the resisting capabilities of the organism have been so far restored as to admit of a return to direct antisyphilitic medication. Here, as always, *our plan of management and the doses we prescribe must be adapted to the patient's constitutional peculiarities, as well as the nature of his disease.*

Aside from these special conditions, I believe that Fournier's method is that which is preferable in the greater number of syphilitic cases, and this belief is founded solely upon my faith in the bacterial origin of the disease.

It need scarcely be added that, in conjunction with specific medication, the patient's strength must be supported by suitable nourishment and favorable hygienic surroundings. The *lowering diet* so frequently advised in the earlier stages is altogether a mistake, except in the case of overfed and very plethoric individuals.

The long-continued mercurial and iodide treatment deserves to be considered, moreover, in relation to the *hereditary transmission* of syphilis. We know that when the disease runs its natural course, the liability to such transmission tends to diminish spontaneously at a certain rate; but this tendency may be decreased by the judicious administration of mercury. Now, since the degree of transmissibility has nothing whatever to do (apart from the effect of remedies) with the presence or absence of syphilitic symptoms, it follows that any course of treatment which depends upon the latter must be absolutely worthless, in this regard. Looked at from a kindred point of view, Fournier's plan of cure assumes additional importance when we consider that it demands not only a certain lapse of time between the infection of a subject and his *marriage*, but also the employment during this interval of vigorous therapeutical measures.

A word may be expected before closing in relation to Guntz's "chromwasser" treatment. This, in my opinion, does not possess the advantages claimed for it by its inventor. His own communications on the subject—especially his nnmerous clinical histories—are quite sufficient to prove that he is still far from having attained his object.

Clinical Notes.

MAGGOTS IN THE EAR.

Reported by Spencer M. Free, A. M., M. D., Dagus Mines, Pennsylvania.

August 1st, G. F. brought to my office his son, aged 9 years, who had been complaining of earache for three days.

Examined and found two maggots, which I removed. The boy cried so much and moved his head so frequently that I desisted from further examination.

Going on the supposition that more were present, I concluded to chloroform them. I procured a clay pipe, into the bowl of which I placed cotton and poured chloroform upon it. My assistant held the boy's head, and placing the mouth of the pipe in the boy's ear I blew through the stem. The vapor of the chloroform thus entering the ear afforded relief of pain, and anæsthetized the maggots. We then turned the boy's head to the side and shook it gently. This threw the animals near enough to the outside to enable us to remove them with forceps.

This proceeding we repeated three times and then syringed thoroughly, floating four out in this way.

The total number removed was twenty. They varied in length from three-sixteenths of an inch to five sixteenths.

We noticed that some of them after removal laid still for a few minutes and then began to move, thus giving us the idea that they were "not dead but sleeping."

We could discover no cause, except filth. There was no disease of the ear, and our idea is, that dirt accumulated to such an extent in it as to afford the larvæ a fitting resting place.

After giving to the boy a healing lotion, and to the parents some advice and specific directions as to cleanliness, we "sent them on their way rejoicing," telling them to return if he "got 'em again."

Society Reports.

CLINICAL SOCIETY OF MARYLAND.

STATED MEETING, HELD MARCH 21ST, 1884.

(Specially reported for Md. Med. Journal.)

The Society met at the usual hour, the President, Dr. J. Edwin Michael, in the chair.

Cast of Congenital Deformity of Arm.—*Dr. R. Winslow* presented a plaster cast of the right arm of a man who has a remarkable congenital deformity, the forearm being rudimentary, and the hand absent. The upper arm is also much smaller than that of the opposite side, and the humerus markedly undeveloped. The elbow is firmly anchylosed at a right angle. As far as can be ascertained but one bone, the ulna, forms the forearm, but a small bone can be felt in a thick fleshy mass, corresponding to the hypothenar portion of the hand; but whether this is a rudimentary radius or a metacarpal bone is undetermined. A well developed thumb forms the extremity of the limb, which articulates normally and is very movable. The man follows his occupation, that of hostler, and experiences no inconvenience from the deformity. He remarked he would not take $5,000 for that arm.

Specimen of Flat-Foot.—*Dr. Winslow* also showed the bones of the foot and lower part of leg of a subject in the anatomical rooms at the University. On both sides he was extremely flat-footed. There is a marked relaxation of the ligaments of both soles, and a displacement of the bones of the ankle, consisting not so much in dislocation as rotation of the astragalus off the os calcis; this causes a marked prominence on the inside of the foot, and the individual walked on the head of the astragalus. The astragalus was pushed so much towards the inside that the external malleolus rests on the os calcis, and there is a large cavity on the upper and outer surface of the os calis for articulation with the fibula. These conditions would render any relief by surgical operation in such a case exceedingly problematical. Both feet are nearly identical.

In answer to Dr. Tiffany, Dr. Winslow said that in his first case the nail of the thumb was normal and the thumb exceedingly movable.

Specimen of Diseased Heart of a St. Bernard Dog.—*Dr. Councilman* exhibited this specimen, which he had removed in the autopsy of a large St. Bernard dog belonging to Prof. W. K. Brooks. The animal had died with many symptoms of heart disease, as ascites, dropsy of the posterior extremities, shortness of the breath, etc. The first indications of trouble were observed three years ago, when it was noticed that he could not go up hill without panting for breath. On the mitral valve there are a number of vegetations. The chordæ tendineæ are eroded and float in fluid. There are also some slight vegetations on the tricuspid valve, one of the flaps of which is tied down to the ventricular wall. There are a number of old infarctions in the kidneys and spleen; also some new infarctions in various organs, the latter being evidently from such vegetations as are found in the valves at this time. The heart is enlarged chiefly by dilatation. The liver weighs 6 lbs., and shows extreme passive congestion. Sections and micro-photographs of hepatic tissue were exhibited, showing atrophy of the parenchyma from pressure of the blood in the dilated vessels. The joints presented no evidence that there ever had been any rheumatic affection.

Dr. E. R. Walker exhibited the following specimens:

1. Foreign Body Removed from Bladder.—About one month ago a physician on the "Eastern Shore" was called to see a man who lives the life of a hermit, on account of retention of urine. A catheter was introduced, and, as the patient could not be seen until the next day, the instrument was left in the bladder. The next day, on removing it, a string protruded from the urethra, on pulling on which a long, fatty substance was withdrawn. The source and nature of the substance was not further determined.

2. Haemato-Salpinx.—A young mulatto woman died with symptoms which were supposed by the attendant to indicate peritonitis. It was also supposed that she had aborted. It seems that she had stood for a long time at a reception, and immediately afterwards had had a hemorrhage from the vagina, followed by anorexia and headache. The autopsy showed an entire absence of peritonitis. The whole pelvic tissues were very much congested. The uterus was anteflexed, evidently a condition of long standing. The Fallopian tubes were

distended with blood, and their extremities had evidently been occluded.

3. Fracture of Skull and Post-Mortem Erosion of Stomach.—A man received a fracture of the skull from a blow, gradually became comatose, and died with symptoms of compression. Autopsy revealed a linear fracture through the squamous portion of the temporal and wing of sphenoid bone, rupture of middle meningeal artery, and a large blood-clot pressing on the brain. The stomach had undergone post-mortem softening and was much eroded. There was a large opening through the diaphragm, through which the gastric contents had escaped into the pleura. There was no extravasation of blood nor peritonitis, nor was there any evidence of a corrosive poison having been taken.

Measles with Laryngeal Complications.—*Dr. R. Winslow* spoke of several cases of measles which had recently occured at the Johns Hopkins Colored Asylum, and which exhibited exceedingly severe laryngeal and bronchial trouble. In one case symptoms of croup appeared, and tracheotomy seemed for a time imminent. Under treatment by steam and vapor of lime the patient has progressed satisfactorily, and the necessity of tracheotomy has been averted. There was no reason to suppose this a case of true croup, although the case has presented all the symptoms of true croup, as in a fatal case in which the speaker had performed tracheotomy some weeks ago. Had never seen laryngeal symptoms before so grave in measles as to cause apprehension.

Fatal Laryngitis, without Membrane Occurring in the Course of Measles—Tracheotomy.—*Dr. Tiffany* reported the following case: A boy, æt. 8, had measles. Another boy in the same room had measles, and hence there was no question as to the diagnosis. Dr. T. was only called in to decide upon the propriety of opening the throat. It was then 2–3 P. M., and the symptoms of laryngeal stenosis had begun about 4 A. M. The eruption of measles was out; laryngeal stenosis was extremely well marked; the voice had been suppressed for several days; the face was of a pasty-white color; the lips bluish. The treatment previously employed had been slacking of lime, hot sponges and other warm applications applied outside the throat, etc. The diagnosis was acute laryngitis. Nothing was of any service, leeches being employed among other things. The throat had been examined by the attending physician and no membrane could be detected, the only change observable being tumefaction and a bright scarlet color. The patient was extremely restless, and clutched at his throat just as though he had had true croup. The symptoms grew worse, and when the child was extremely near death tracheotomy was done. Five or ten minutes afterwards he was breathing comfortably. The windpipe was held open, but no membrane was visible, only a thin mucus, and a most intensely scarlet-colored surface. The surface of the trachea was intensely hyperæsthesic; hence no tube was introduced, but the skin simply stitched to the trachea with silver wire. The patient went to sleep and did well till 9.30 P. M., when the pulse and respiration began to increase in frequency until midnight, when he died of "capillary bronchitis," as the attending physician supposed. There was little bleeding during the operation. Right at the bottom of the incision and in front of the trachea a large gland was found, which had to be held aside during the operation. Dr. Tiffany had sat and watched this patient for one hour, and could see no difference between the symptoms and those of laryngeal diphtheria.

Dr. Booker had had a number of cases of false croup lately. He did not know any way of diagnosticating the true from the false. A thick tenacious muco-purulent secretion will produce the same difficulty of breathing as a false membrane. We do not always see a membrane even in membranous croup.

Dr. Branham was surprised to hear there was no way of distinguishing true from false crop, except by seeing the membrane. He quoted Niemeyer upon this point: in true croup both inspiration and expiration are interfered with; in false croup, only inspiration. So the breathing alters in the latter from time to time, and there is no supra-clavicular depression.

Dr. Waters related the following case to show how easily a man may choke to death in measles: A man had a mild attack of measles—his second or third attack. Dr. Waters was detained away by sickness, and on his return found the man dead. He made a *post-mortem* examination, and found that death had been due to œdema of

the glottis. There was entensive infiltration into the sub-cutaneous cellular tissue, the opposing surfaces being not only in contact but pressing upon each other. There was but little mucus. There was no bronchial or pneumonic engorgement, the lungs expanding about naturally. This was a very instructive case. Tracheotomy would certainly, or almost so, have saved life.

Dr. H. Clinton McSherry thought that Dr. Tiffany's patient may have died from the operation as he had capillary bronchitis. A laryngologist would think of resorting to scarification of the larynx by the nail or by a bistury guarded to near the point by adhesive plaster before performing tracheotomy.

Dr. I. E. Atkinson was in favor of the view that the diagnosis of true croup should rest on finding the membrane. In one case a number of consulting physicians diagnosticated true croup, but no membrane was found on *post-mortem*. In œdema of larynx, as described, there can be no question of the advisability of tracheotomy. Has seen a number of cases of true croup get well. In one case a surgeon refused to operate because he had lost a much more favorable case the day before; mercury was employed externally and internally, and the patient recovered. Hardly knows a case of recovery after tracheotomy. Believes the statistics of the operation will not show figures superior to those in patients let alone. Believes tracheotomy an unjustifiable operation.

Dr. Winslow maintained that the operation was often successful.

Dr. Branham referred to the results of Dr. J. W. Chambers, of Baltimore, who has done the operation fifteen times, with four recoveries—a better percentage than that of Ripley and Pilcher, quoted by Dr. Winslow.

Dr. Atkinson said that if Dr. C. had treated the cases on ordinary principles he would have gotten the same percentage of recoveries.

Dr. Winslow was opposed to early operation, resorting to it only when there was danger of suffocation.

Dr. Erich recalled a case of diphtheritic croup occurring fifteen or sixteen years ago, like the case reported by Dr. Tiffany, in which death was looked for before morning. The throat was mopped by a solution of nitrate of silver, ʒij to ʒi, efforts being made to get it down into the trachea. The child was much better the next morning. Is sure œdema was present in this case along with diphtheritic croup.

Fœtal Ausculation.—*Dr. Branham* read the paper of the evening on this subject. He said that the sounds of the fœtal heart were first discovered by ausculation in 1818. The comparison to the tick of a watch did not seem to him to be accurate. Had never heard the fœtal heart beat before the end of the fourth month. It is usually heard with greatest intensity midway between the left anterior superior spine of the ilium and the umbilicus, because the back is usually located there. In face and breech presentations it is heard at or above the umbilical line. It is of great importance in ascertaining the position of the child in utero, but is not to be relied on alone. It is by far the most reliable sign of pregnancy—nothing can be mistaken for the fœtal heart by a careful examiner. Had diagnosticated the death of the fœtus in two cases and confirmed it subsequently, by cessation of the heart beat.

Can the sex be ascertained by auscultation? Upon this question a difference of opinion prevails. Naylor, of Edinburgh, says digestion increases the rate of the fœtal heart; Cummings that the heart rate varies with size, and the female being proportionately the more rapid; Wilson that the female is the more rapid.

Dr. Branham then gave the results in twenty-three cases seen at the Maternité Hospital, Baltimore, in which the probable sex was recorded before birth: thirteen males, average weight seven and a half pounds, average pulse 130; ten females, average weight eight pounds, average pulse 143. Of males nine were correctly diagnosticated; two were recorded as doubtful (pulse of these 136½ and 135½, weight seven pounds and eight pounds fourteen ounces); and two were recorded incorrectly (pulse 160 and 145, weight nine pounds and nine pounds four ounces). Of females seven were correctly recorded, and three were recorded as doubtful (pulse of latter being 131½, 131, and 137, and weight seven pounds, seven pounds ten ounces, and ten pounds eight ounces).

Thinks that the maternal pulse in normal condition does not influence that of the fœtus; pathological conditions (as fever)

acting on mother and fœtus, increase it. The rate of fœtal pulse often changes in a great degree and very rapidly, especially after active movements.

Thinks we are justified in concluding that sex of fœtus can be ascertained with considerable accuracy if frequent examinations be made when mother is quiet, not after a meal, and by counting a minute at a time. Urges, in conclusion, that every physician ascertain at once, in cases of confinement, the position and condition of fœtal pulse, so that if emergency arise he can have a sure guide as to whether the child is suffering, dead, or doing well.

Reviews, Books and Pamphlets.

An Introduction to Pathology and Morbid Anatomy. By T. Henry Green, M. D., Lond. Fifth American from the Sixth Revised and Enlarged English Edition. Philadelphia, Henry C. Lea's Son & Co., 1884.

Green's Pathology is too well and favorably known to require any extended notice from us. The present edition has been improved by new chapters upon Tumors, Regeneration, Septicæmia and Pyemia, and Vegetable Parasites, by Mr. Stanley Boyd. Besides a very thorough revision of the text by the author, we find several new subjects discussed, as Lupus Vulgaris, Leprosy and Actinomycosis. The Etiology of Tuberculosis and the bacilli question also receive much notice. The present volume contains 181 pages more than its predecessor.

Medical Society of Virginia.—The Fifteenth Annual Session of this Society will be held at Rawley Springs, Rockingham county, Va., Sept. 9–12, 1884. The Virginia railroads offer greatly reduced rates of fare, and the proprietors will entertain the society, during the meeting, free of charge. Among matters of special importance coming before the Society will be the "recommending of three physicians from each Congressional District to the Governor as the *first* Board of Medical Examiners for the State." Besides the usual reports of progress in the various departments, papers by Dr. Hunter McGuire on "Intestinal Obstruction," and by Dr. R. B. Stover on "Malarial Fever," will perhaps attract most attention.

Editorial.

Gunshot Wound of the Stomach—Successful Laparotomy.—The following abstract, from the *British Medical Journal*, will be read with interest by the readers: "Professor Kocher, of Berne, has recently operated with success on a case of gun-shot wound of the stomach. A boy, aged 14, was admitted into hospital half an hour after having received a wound in the region of the stomach from a pistol-shot aimed at him from a distance of about five paces. He was pale, and complained of abdominal pain; the abdomen was swollen and distinctly dull on percussion inferiorly. Pressure on the abdomen caused pain. A quarter of an hour later hiccough, severe epigastric pain, vomiting, pallor, and symptoms of collapse came on. There was tympanitic resonance from the ensiform cartilage to the umbilicus, with complete dulness from the navel downwards and in the flanks; the lightest percussion caused severe pain. Three hours after the injury laparotomy was performed. On opening the abdominal cavity in the region of the navel a great quantity of dark blood escaped. The bullet-wound was discovered with comparative ease; it was situated on the anterior surface of the stomach, towards the greater curvature in the direction of the fundus. The wound was circular, with sharp edges, and about half an inch in diameter. The bullet could not be found, nor was there any aperture of exit. The edges of the wound were united, first with two catgut ligatures, like an ordinary wound, and then a continuous silk suture was applied, for the distance of about an inch, so as to invert the serous coat around the wound. Recovery was retarded by an abscess which formed in the track of the sutures in the abdominal wound. Professor Kocher declares that, considering the impossibility of recovery in cases of gun-shot wound of the stomach when active measures are not taken, it is the duty of the surgeon to perform laparotomy whenever an injury of that kind is suspected."

The above report is of especial interest to us at this time, in view of the many cases of fatal gunshot-wounds of the abdomen which have occurred in Baltimore during the present summer. Whilst there has been considerable literature advocating the propriety of performing laparotomy for penetrating gun-shot-wounds of the abdomen,

but few, if any, cases have been reported in which the suggestion has been carried out. Amongst those who have earnestly advocated this procedure are Dr. Marion Sims, Sir William MacCormac, Dr. Hunter McGuire, and recently Dr. C. T. Parkes and Prof. S. D. Gross, but there is no evidence that any of these distinguished gentlemen ever performed the operation upon human beings, hence it is very satisfactory to be able to point to some clinical proof of the correctness of their views.

Our own mind is strongly impressed with the reasonableness of attempting to secure more favorable results by operation than those which follow the expectant, do-nothing, or opium plan, from which a mortality of 75 to 80 per cent. occurs; but it is important that a correct diagnosis should first be arrived at, for not all penetrating wounds are suitable for leparotomy. We believe that wounds of the abdomen should be explored in order to determine whether the peritoneal cavity has been entered or not. In gunshot-wounds the direction of the wound, size of the weapon, distance from which the shot was fired, &c., all must be considered. Further, it is not proper to open the abdominal cavity unless there are clear indications of its necessity, for not all penetrating wounds injure the viscera. Sometimes the bullet simply pierces the walls and does no further harm, or, in some unaccountable way, the intestines may receive no injury even when the ball passes directly through the patient. In a case recently under our observation the patient lived five days with a bullet hole in the aorta, the projectile having passed directly through the artery, and neither stomach nor intestines were at all injured. In such a case only harm could come from performing laparotomy. Gross considers tympanites and the discharge of blood from the anus the signs which should guide us in doubtful cases.

Gunshot-wounds of the stomach and large intestine are not followed by so great a mortality as are similar injuries of the small intestines; and in consideration of this fact we are surprised at the statement of Kocher, that recovery is impossible "in cases of gunshot wounds of the stomach when active measures are not taken." We have knowledge of two cases in which the stomach was penetrated by pistol balls, in one of which blood was vomited, and in both peritonitis supervened and both recovered without an operation, but this result is phenomenal.

In view of the great mortality following this class of injuries when left alone, it becomes our duty to open the abdomen and search for the lesion, and suture any wounds, or resect portions of the intestine if much tissue is injured; but this ought not to be done unless the patient presents clear indications of having received serious injury to the intestinal tract, or unless hemorrhage is taking place.

In the case reported by Kocher the indications for operation were unequivocal. Shock, pain, hiccough, tympanitec and vomiting, with tenderness of the abdomen, all indicated the propriety of laparotomy, which was performed and the boy's life saved.

A Gynecological Study of the Oneida Community.—In *The Amer. Jl. of Obstetrics and Diseases of Women and Children*, for August, 1884, Dr. Ely Van de Warker, of Syracuse, N. Y., contributes a most interesting aud instructive article having the foregoing title. The article gives in detail a study of the elaborate experiments in sexualism as tried by the Oneida Community. We are told in vivid language how the sexual act, so crudely and passionately performed elsewhere, has been reduced to an art by this strange people, and how a deliberate attempt was made to apply the rules that govern scientific breeding to an entire community of men and women. A new science was created by these people, that of "stirpiculture". Its laws were formulated upon those which govern the skilled breeder of short-horns. Its practice consisted in combining known conditions of temperaments and mental aptitudes in men and women to produce given results in children. The Community lived long enough to bring this practice to something like perfection; but, unfortunately for stirpiculture, it was too brief in existence to reach results. The sexual practices of this Community were expressed in the term *male continence*. The founder of the Community, J. H. Noyes, says that its existence was due to this discovery. This sexual term is best described by analysing the sexual act, which according to Noyes, has a beginning, a middle and an end. The beginning is simply the presence of the male organ in the female; the second is a series of reciprocal motions; the third is the ejaculating

crisis. The process up to the moment of emission is a voluntary act, and can be controlled at any point. The final crisis is only uncontrollable. Noyes then argued that intercourse during the primary and secondary stages is lawful, and may be continued as long as agreeable. This is what he termed male continence. For thirty years, we are told, two hundred and fifty sober men and women lived together under this rule, and in constant observation of its tendencies and effects.

The peculiar social relations of this Community are described at some length by Dr. Van de Warker. The main facts may be stated briefly: Noyes recognized what is termed "amative desires" in very young people, and they were early introduced into the social system. Before puberty sexual intercourse was encouraged. These sexual relations did not occur clandestinely, but were regulated by separations and criticisms. Pregnancy rarely took place, except by accident, and abortions were not practiced. Love affairs were frequent, and as they occasioned a great amount of trouble to the Community they were discouraged. Young men, under twenty years of age, were associated with women who had passed the change of life, or who were so near it that they would not be likely to become pregnant. Young girls were associated with men much older. The object of this unequal association of the sexes was to oppose every barrier to impregnation, and to discipline the young in the peculiar sexual practices of the Community. In other words, to enforce the practice of male continence. After living in a state of sexual communism for some years, a feeling of dissatisfaction began to develop in the community concerning the effect of their peculiar sexual practices upon their health. The subject being one of great physiological interest, Dr. Van de Warker, at the invitation of the physician to the Community, Dr. T. R. Noyes, undertook the necessary investigation in order to make a study of the subject upon the women inmates. At that time (1877) there already existed two factions, one in favor of and one opposed to the sexual habits then practised, which division finally resulted in the breaking up of the Community. Dr. Van de Warker examined about one-fourth the women inmates when his investigations were stopped.

Dr. Van de Warker further says: "I commenced my work directly after breakfast, and continued until daylight began to fail. Each lady was brought into a small steam-heated room, the dormitory of Dr. Noyes, who was present and assisted at the examinations. From the order and manner in which they presented themselves, I am quite confident that there was no attempt to select cases by Dr. Noyes; but those, young or old, were brought in who were willing to submit to the examination. They were bright and intelligent women, and were modest and lady-like in their manner."

Dr. Van de Warker then gives in lengthy detail the results of his experiments. He began by making a study of every item of interest in the history of each individual which seemed to bear upon the subject under investigation. A point of interest to be noted was the early age at which a large proportion menstruated for the first time, namely, one at ten years, eleven at twelve years, and twelve at thirteen years. "About 57 per cent. menstruated nearly two years in advance of the average age for girls in this latitude. Other causes may have operated to produce this, but the one most evident is the mental and physical stimulation due to the peculiar sexualism that surrounded them. Sixteen of these instances of early menstruation were exposed to communistic marriages from ten to thirteen years."

Comparing the weights and chest developments of these cases of early sexual intercourse, Dr. Van de Warker says: "However repugnant it may be to our sense of manhood, we cannot resist the conclusion that sexual intercourse at this tender age does not arrest the steady tendency to a fine and robust womanhood. From what we all have observed of the stunted appearance of women who have borne children prematurely, it would seem that the extraordinary care with which impregnation was prevented by the Community was a redeeming feature of Mr. Noyes' system of sexual intercourse, in its humanitarian and physical relations. As a gynecologist, I think I may say further, that in no other way than by male continence could impregnation be insured against."

Observing the advanced ages at which communistic marriages were first indulged in by several women who were presumably ill-prepared to change their sexual habits, it

will be perceived "that they enjoy a vigorous old age, and, upon a careful questioning concerning the symptoms at the change of life, they testified that they had passed this trying period without any unpleasant results."

Bearing in mind the fact that Dr. Van de Warker is studying a group of women having promiscuous sexual relations of the most artificial and extraordinary form known to us at the present time, and examination of Table II upon general physical conditions is of remarkable interest. We have only space for brief conclusions, and must refer our readers to the paper for further details.

The first observation relates to the nervous system. "So far as I am able to judge they appear to conform, in degree of nervous health and vigor, to the condition of average wives whose physical powers are severely taxed by the duties of life."

The nutritive system, with only a few exceptions was kept up to a normal degree.

Many facts of interest are grouped in Table III concerning the menstrual function. "Taking the table as a whole, I cannot see wherein it would differ from a similar tabulation of the menstrual function of a like number of women in the married relation in life as we are familiar with it, and when we take into consideration the severe duty exacted of all these women in the various business departments of the Community, I believe that I am safe in saying they are subject to no derangements of of menstruation that we may assign to their peculiar sexual habits as a cause."

In Table VI Dr. Van de Warker tabulates the condition of uterus and bladder. The lesions observed and tabulated are of a minor character and cannot be looked upon as the result of morbidly acting causes, nor does he find any condition which can be traced back to the peculiar sexual habits of these people as a primary cause.

In commenting upon the facts observed, Dr. Van de Warker says: "I do not know as I am called upon to draw any conclusions, nor would I, if it were not for some tendencies which have entered into gynæcology of late years to explain many of the uterine disabilities of women by evasions of natural consequences of the sexual relation, and by irregularities in the act itself. It is within a recent period that this matter has been dignified with a place in literature, and from several authors it has received the importance due to a new discovery. But such irregularities are nearly as old as the human race, and whatever power they may possess now to produce disease has existed with equal force from the days of Onan down. It will be difficult to convince one who critically compares the physical and mental energies of the present generations of civilized men with those of the past that the race has deteriorated, as it most certainly would have done if such a prevalent and long-existing vice existed with the force lately assigned to it as a morbid factor."

In concluding his paper, the Doctor wishes his readers to understand that he is "not defending any possible evasions of the legitimate, physiological sexual relation." He is ready to grant that such evasions are physically and morally wrong, but what he contends for is to give them no more than their just value as disease-producing causes.

It will be admitted that Dr. Van de Warker has described the most artificial sexual mal-relations known to history in their most aggravated form, namely, a group of men and women, under the laws of communism, mingling promiscuously together. In these facts which he has presented he can discover nothing but negative evidence relating to the effect of male continence upon the health of the community. Before any due weight can be attached to the negative conclusions of the author of this paper the reader must bear in mind that his examinations take notice of only forty-two women holding the promiscuous sexual relations described. It is presumed that these individuals were fair representatives of their class, and, therefore, the observations recorded may be considered legitimate. An objection may be raised against any conclusions drawn from so small a number of cases. Is it not probable that forty-two women taken promiscuously from any of the walks of life would present the usual physical characteristics and diseases observed in the women of the Oneida Community? Enlarge this group to embrace a far wider class of individuals, and the presumption grows stronger that habits and influences will exercise their weight in the production of mental and physical diseases just in proportion as the laws of physiological life are violated. This presumption grows stronger under the light of recorded experience, which gives universal testimony to the fact

that all violations of physiological functions leave their impress upon the physical conditions of communities as well as individuals.

Chloride of Gold and Sodium in Some Nervous Affections.—In an interesting paper on this subject (*Med. News*, Aug. 2nd.), Dr. Roberts Bartholow relates some important facts bearing upon the use of gold as a therapeutic agent. Gold is mentioned as a valuable remedy in the treatment of *melancholy* in mediæval history, and afterwards it was used by the Arabians and Italians. Its therapeutic powers are grouped under three heads: 1st., according to its so-called alterant effects; 2nd., according to its action on the nervous system; and, 3d., according to its urinogenital properties. Referring to the preparation used, Dr. Bartholow prefers the double chloride of gold and sodium which he prescribes in the dose of one-twentieth of a grain. In this quantity, twice or three times a day, it appears to have, as its primary action, the power to promote constructive metamorphosis, to improve the globular richness of the blood, and to increase tissue-strength. The tissues yielding most readily to its use, are the connective and especially those of pathological formation. Hence the remedy is considered especially useful in *sclerosis*, whether nervous, hepatic or renal. In posterior spinal sclerosis, and in chronic interstitial nephritis, Dr. Bartholow has found the gold salt very efficacious. When used in locomator ataxia, early and persistently, it has seemed to him to have the power of arresting the disease. Dr. Bartholow has observed excellent results following the use of the gold chloride in many cases of fibroid kidney. In a form of hypochondriasis, coincident with the onset of degenerative changes in the cerebral vessels he has found the gold and sodium chloride very effective. When persistently used, the uneasiness in the head, the vertiginous and other abnormal sensations subside, the mental oppression at the same time clearing up.

In certain affections characterized by spasm, as asthma, laryngismus stridulus, and singultus, Dr. Bartholow has seen this remedy act surprisingly well. In urinogenital affections the gold has great value, and cases of chronic albuminuria have been observed in which the curative effects of the remedy have been most conspicuous.

In certain cases of sexual debility, in dysmenorrhœa with scanty menstruation, and in chronic metritis the persistent administration of gold and sodium coloride has done much good. Dr. Bartholow indicates the direction in which the remedy promises to be useful, but is of the opinion that wider and more varied experience is necessary to fix its real position. It seems to us from this statement, made by Dr. Bartholow, that the remedy in question possesses very valuable powers and is destined to awaken considerable interest. Its actions and uses are worthy of most careful study.

Miscellany.

Pruritus Ani.—This troublesome affection may be caused by eating spiced food (especially if it contains capsicum), game, lobsters, and other kinds of shell-fish. It sometimes comes without apparent cause in those who are of the gouty diathesis. In children it is most frequently an indication of intestinal worms, and in women of uterine difficulty. Sometimes it may be allayed simply by discontinuing an objectionable article of diet, but in people of an arthritic or nervous tendency this plan will usually be insufficient. As means for local treatment may be mentioned zinc lotion, milk of bitter almonds, and infusion of tobacco, or a mixture consisting of one dram of hydrocyanic acid and eight ounces of water, iced water, or very hot water, etc. Tar ointment is recommended for very rebellious cases, or ointments in which subacetate of lead, oxide of zinc, nitrate or bichloride of mercury is the active agent. Sometimes it will be necessary to experiment with several preparations, for that which will be effective in one case will not necessarily be in another. If the trouble has become chronic, the skin around the anus is very apt to become thickened and fissured. In such cases it is well to keep the parts covered with a piece of linen moistened with a strong solution of nitrate of silver, or with oil of cade. Simple pruritus or itching, unaccompanied at the outset with an eruption, must not be confounded with *prurigo*, a dermatosis which is equally rebellious to treatment, which is characterized by a papular eruption, accompanied with violent itching, and which calls for similar treatment with pruritus.—(*Jour. de Medecine de Paris, Archiv. Pediatrics.*)

Sir Erasmus Wilson, F. R. S., died on the — inst. He was born in 1809. He first devoted himself to anatomy, and wrote a text-book which became the leading work on the subject. He was best known, however, for his acquirements and writings as a dermatologist, being acknowledged as the leading authority on that subject in England. He acquired great wealth, which he spent with great freedom in the promotion of science and charity. He established a chair and museum of dermatology in the College of Surgeons of England, and was the first Professor. He was at one time President of the College of Surgeons and received the Knighthood from the Queen for his benevolent and public spirited acts. In 1876 Prof. Wilson gave $50,000 to have Cleopatra's Needle removed from Egypt to London, which was, after several mishaps, successfully accomplished.

Precautions Against Cholera.—The following verse is said to have embodied the ideas of the people of the last century on this subject:

"*Tiens tes pattes en chaud,*
Tiens vides tes boyaux,
Ne vois pas Marguerite;
Du cholera tu seras quitte."

A medical friend translates the above as follows:

Warm as cotton keep your feet,
And your bowels clean and sweet,
Dwell afar from Margaret,
And the cholera you'll ne'er get.

The cable announces the successful opening of the International Med. Congress at Copenhagen on the 10th inst., in the presence of the King and Queen and other royal personages. There were present 350 Danish physicians, 100 Sweedish, 100 Norwegian and 800 of other nationalities.

The French Government having requested the Academy of Medicine to state its opinion as to the best methods to prevent the spread of cholera, the Academy adopted the following conclusions:

1. Land quarantines are useless and injurious, and cannot be recommended.

2. Disinfection of travelers and their luggage is equally useless and injurious.

3. Medical attendants should be posted at every railway station, to take charge of all travelers who appear to be affected with cholera, and to convey them to a proper place of isolation and treatment.

4. Individual precautions are the best preservative against cholera, and these ought to be carefully enforced by public authorities and observed by private persons.

Salicylic Acid in the Treatment of Lupus.—Dr. J. G. Marshall says in the *British Medical Journal:* I have for some time employed salicylic acid in the form of ointment, as a remedy for eczema of the scalp and impetigo contagiosa in children, with the most satisfactory results, cases that had defied all other treatment yielding rapidly to its agency, and I have been induced to make a further trial of it in other skin affections.

By the kindness of Mr. Rigby, Surgeon to the Doncaster Infirmary, I was permitted to employ it in a very bad case of lupus exedens.

The patient, a woman about twenty-five years old, had her face terribly disfigured, the ulceration having destroyed one ala nasi, the whole of the cheek and eyebrow having been involved. She had been in the hospital before, and had improved under treatment with Donovan's solution and a visit to Harrowgate. But on her return, though she was kept under treatment and observation, fresh tubercles developed, and the parts that had cicatrized soon became again involved, and she was readmitted to the institution. I first tried an ointment of fifteen grains of the acid to an ounce of vaseline, which was of no use; I then increased the strength to a drachm, and then to one drachm and a half to the ounce.

The ulcers soon began to heal, no fresh tubercles appeared, the cicatrices became soft and lost their shiny, unhealthy appearance, and the skin of the face is now almost sound. She was previously taking a mixture of Donovan's solution and the liquor ferri dialysati. But as this had been without apparent benefit, I think it fair to give the credit to the external remedy. I have not heard of salicylic acid being employed before in the treatment of this disorder, and its action seems very satisfactory, especially as it does not seem to cause much irritation.

Medical Items.

Dr. Wm. R. Weisiger died at Manchester, opposite Richmond, Va., on the 28th ultimo., in his 56th year. He was President of the Microscopical Society of Virginia, and a warm devotee to the science of Microscopy.=Dr. R. B. Stover has withdrawn from the editorial management of the *Atlantic Monthly*, which will be continued under the sole conduct of Dr. H. G. Houston.=Dr. Koch has been decorated with the Cross of the Legion of Honor by the French Government.=There are 51 medical journals published in Italy, the largest number (10) being located in Naples.=The Lehigh Valley Medical Association will hold its fourth annual meeting at Mauch Chunk, Pa., on Tuesday, the 19th instant, instead of on Wednesday, the 20th, as had been announced. The Annual Address will be given by Dr. Theophilus Parvin, of Philadelphia.=The "Canadian Practitioner" announces material changes in its editorial staff. Dr. Cameron and Dr. Nevitt retire, and their places are taken by Dr. J. E. Graham and Dr. W. H. B. Aikins, who, together with Dr. A. H. Wright, are to be the editors and proprietors.=The *American Practitioner* says: Dr. Brandini, of Florence, has recently discovered that citric acid will assuage the violent pain which is the usual concomitant of cancer. He applies to the part pledgets of lint soaked in a solution of four grains of the acid in three hundred and fifty grains of common water, with the result of affording instantaneous relief in the most aggravated cases.=The American Dermatological Association will meet at West Point, New York, September 3, 4, and 5.=Prof. Simon, of the College of Physicians and Surgeons of this city, we understand has written a text-book of chemistry, which is now in the press of H. C. Lea's Son & Co., of Philadelphia. It will be out in time for the coming session.=A "Wegg"-ian Translation.—A medical student lately rendered "De mortuis nil nisi bonum," "From the dead nothing but bones."—*Ex.*=Specimens of urine containing tube-casts can be preserved by the addition of a minute quantity of corrosive sublimate.—(*Polyclinic.*)=The annual appropriation by the Legislature of $20,000 for the assistance of the worthy blind in New York city has just been distributed. Those who are eligible to the benefits of this fund are men and women who have resided at least two years in the city, who are totally blind, and who have never been inmates of a public institution, and its object is to encourage them to help themselves and keep out of almshouses and asylums.=The American Academy of Medicine will hold its annual meeting at Baltimore, Maryland, on Tuesday and Wednesday, October 28th and 29th, 1884.=A man during a lifetime of 50 years, according to a paper recently read before the Academy of Sciences, Paris, sleeps away an aggregate of six thousand days, works away the same period, eats away two thousand days, walks away eight hundred days, is ill during five hundred days, and amuses himself with the remainder of his half-century on earth.=Dr. B. W. Richardson recommends the following formula (*Asclepiad*) for administration of amyl nitrite by the month—a method specially recommended in asthma. Amyl nitrite, 36 minims; ethylic alcohol (sp. gr. 830), 6 drachms; glycerine, sufficient to make an ounce and a half. One drachm at a dose in a wineglassful of warm water.=Dr. J. R. Uhler suggests filling the peritoneal cavity with sterilized artificial serum by the aspirator to cure Asiatic cholera.

Changes in the Stations and Duties of Officers Serving in the Medical Department, U. S. Army, from August 5, 1884, to August 11, 1884:

Gibson, J. A., Major and Surgeon, granted leave of absence for one month and fifteen days.

Heizmann, C. L., Captain and Assistant Surgeon, relieved from duty at Columbus Barracks, Ohio, and ordered for duty in Department of the East.

McCreery, George, First Lieutenant and Assistant Surgeon, leave of absence extended two months.

Hopkins, W. E., First Lieutenant and Assistant Surgeon, granted one month's leave of absence, with permission to apply for one month's extension.

List of Official Changes in the Medical Corps of the Navy during the week ending August 9, 1884:

Assistant Surgeon J. S. Sayre ordered to U. S. S. "Independence."

Original Papers.

DIAGNOSIS IN PLEURITIC EFFUSIONS.

BY THOMAS S. LATIMER, M. D.,

Professor of Physiology and of Diseases of Children, College of Physicians and Surgeons.

Pleuritic effusions are more common than is generally supposed, and, notwithstanding the readiness with which they may be recognized, frequently escape notice. The writer has had five cases (all large effusions) within the last three months, not one of which had been recognized by the attending physicians, who were all fairly qualified men. The reason for this is found in the frequent absence of symptoms. It is indeed quite surprising how often large effusion, occupying the whole of one side, may be unattended with symptoms pointing to the chest, or with any considerable disturbance of general health. I of course allude to the condition remaining after the subsidence of acute pleurisy should this have preceded the effusion. In three of the five cases referred to no pulmonary trouble was indicated, except through the physical signs. They were all under five years; one about that age; one a little over two years, and one a babe at the breast about eight months of age. The two elder children were not confined to bed, but when first seen by me were playing about the room apparently in ordinary health. The diagnosis of "malaria" had been made in one case, and of "hepatitis" in the other. The infant was brought to the dispensary suffering from an ordinary diarrhœa. In consequence of its loud cries, apparently occasioned by fright, I directed the mother to give it the breast, when my attention was caught by the manner in which, after a few sucks, it let go the nipple and after a few hurried respirations greedily seized it again. Examination of the chest then revealed the true condition. When not sucking or crying, or immediately thereafter, the respiration was so little quickened as readily to escape notice. These three cases are by no means peculiar in this respect. Dr. Beaumont, in the *British Medical Journal*, April 1884, reports three cases in each of which the patient was unaware that anything was wrong with the chest, although in one, a woman aged 42, "who complained of pains in the abdomen, and epigastrium with malaise," thirty-four ounces of serum were found in the left thorax on aspiration. In the second case, a boy of 12 years, who had complained of occasional pains in his left side which had been felt for the last twelve months, but who had continued to work as an errand boy, twenty ounces of serum were withdrawn.

The third, a laborer, aged 24 years, suffered from a troublesome cough, with tenderness over the second, third and fourth dorsal vertebra, with "slight dulness at the left base posteriorly." * * "In a few days rapid effusion into the left pleura occurred, with no subjective symptoms. Temperature 98.4°, respiration 28, pulse 76. Forty-eight ounces of yellow alkaline serum were drawn off by the aspirator." (*London Medical Record*, *July* 15, 1884.)

The absence or mild character of symptoms has been a matter of frequent observation by Trousseau, Anstie, Lewis Smith, and others.

The physical signs, however, when carefully observed will almost always suffice for diagnosis, and all doubt may commonly be removed by aspiration.

The signs usually enumerated as of importance in diagnosis, varying stress being laid on different ones by different observers, are quickened breathing, with diminished mobility of affected side; increased measurement of affected side, with or without intercostal bulging; dulness or flatness on diseased side, frequently changing position with change in position of patient; increased resonance on unaffected side and on affected side above the level of effused fluid; diminution or loss of vocal fremitus on affected side; absence or diminution of vesicular sound with bronchial breathing; displacement of thoracic and abdominal viscera; succussion and œgophoony. Of these signs scarcely a single one, except dulness on percussion, that may not be absent, or profoundly modified. Of the two last mentioned, succussion and œgophony, I am of the opinion that Anstie has properly characterized them as "fancy signs," and shall dismiss them without further consideration, although Dr. Day, of London, speaks of the latter as a "very characteristic sign." Quickened breathing is, in my judgment, one of the most constant signs, and though sometimes but

slightly increased, has never been entirely wanting in any case that has come under my observation. It is, however, often so slightly increased even in large effusions, especially when of slow accumulation, that it may be without significance. And when it is remembered that this sign is not materially different in pleurisy before effusion, in pneumonia and in capillary bronchitis, it will be seen that it is only of diagnostic value when associated with other signs indicating the presence of fluid. In long standing effusions, and especially in the young and feeble in whom the resistance of the chest walls is lessened, increase in the dimensions of the affected side is frequently present, but by no means invariably so. In middle aged persons, in the comparatively strong at any age, and in cases where the fluid has been but a short time effused, there is often no difference whatever in the dimensions of the two sides.

Day, Albertini, Stokes, and others, think that intercostal bulging indicates the presence of pus, and this, I believe, is a correct view if the bulging occur at an early period of the effusion, for empyemic subjects are usually in a more feeble condition and their muscles sooner yield to pressure; but if the fluid has been long present it has not this significance, since the muscles will then have yielded when serum is present equally with pus. Mensuration, like alteration in the respiratory rhythm does not furnish conclusive evidence of the presence of fluid, for "in the early stages (of pleurisy) there is commonly no enlargement of the affected side; the sound side, indeed, appears, and is the most expanded; but as effusion comes on the balance is restored, and when the fluid becomes copious the intercostal spaces yield, the ribs become more separated, and in proportion to the yieldingness of the thoracic wall a real increase in the size of the affected side is observed. It is only in the slight-made chests of young children that this is easily perceptible." (*Anstie. Reynolds' System of Medicine, p.* 927.)

Dr. Lewis Smith thinks that in children under four or five years intercostal bulging is less likely to occur than in children of "an advanced age," and that in infants, even when the quantity is large, bulging is scarcely appreciable. With this statement I cannot agree. It has been my observation that the younger the child the greater the tendency to bulging. Dr. Fuller says (*Diseases of the Lungs, p.* 181), "this early enlargement has occured only in childhood where the chest walls are unusually yielding, and in those children only in whom the costal pleura has suffered severely;" and neither Dr. Anstie nor Dr. Fuller make any distinction between infancy and childhood when speaking of this sign.

The disposition to rest on the affected side has not been observed by me in any large number of cases. Usually patients seem to rest indifferently on either side or on the back, when the effusion is large preferring the semi-recumbent posture. Of all the signs of pleuritic effusion, dulness or flatness is the most constant and valuable. It is of course to be carefully distinguished from a consolidated lung, tubercular or pneumonic, a solid growth or fibrinous effusion. The distinction is to be found chiefly in the extent of dulness when the quantity of fluid is large, or, in its change of position when the position of the body is altered if the quantity be less. The dulness is more resistant and flatter than is usual in consolidations; but a better distinction is found in the fact that an entire lung is seldom equally consolidated, and it is quite common for a pleuritic effusion to occupy the whole of one side of the thorax; that when an entire lung is consolidated the other seldom or never entirely escapes, whilst it is not uncommon for a full effusion to be limited to one side. In a consolidated lung rales of varying character are usually to be heard in some part of it, not so in effusions; vocal fremitus is generally markedly increased in consolidations, and wanting or lessened in effusions; the amount of constitutional disturbance is almost uniformly greater in consolidations. The altered position of the dulness with change in the posture of the body is not to be found when the pleural cavity of one side is full, or when it is circumscribed by adhesions, and these are so common in childhood that in Dr. Lewis Smith's opinion, it rarely happens that change of position produces change of resonance in young children. When the dulness does shift its position it is certainly due to the presence of fluid. Its failure to change its position is not conclusive of the absence of fluid.

The absence of vocal fremitus, as has already been observed, is not a constant sign by which fluid may be distinguished

from consolidation where it usually steadily increases with the progress of the solidification, for it may not only be present sometimes when fluid is present, but may be increased on the affected side. This was the case in the second of the series of cases referred to in the begining of this article, and also in an adult whose chest I aspirated at Bay View Asylum a few days ago, whose clinical history, furnished by Dr. McIntosh, resident physician, is appended:

F. Greavey, Swiss, æt. 29 years. Family history not obtainable. Personal history, fair.

Present attack dates from March 21st last. Began with fever and cough. No chill. Diagnosed as pneumonia at time. Admitted to Bay View Hospital, April 10, at which time fever and cough were severe. Had all physical signs of pleuritic effusion at time. About June 15, patient aspirated on left side by Dr. Atkinson. Aspirated second time, August 1, by Dr. Latimer. Condition prior to aspiration: Temperature 102°, pulse 104, respiration 28, bowels regular, appetite capricious, sleeps well, somewhat emaciated, cough slight.

Physical Signs.—Inspection: Breathing mostly unilateral. Subclavicular and intercostal spaces more marked, if anything, on right (diseased) side. Palpation: Vocal femitus slightly increased on right side. Percussion: Right side *flat* from fourth rib, all around. Dulness not altered by position. Heart slightly displaced to left. Auscultation: Vocal resonance very much increased on diseased side. Bronchial breathing over region of dulness. Heart sounds normal.

The normal feebleness of vocal fremitus in childhood makes it of little diagnostic value at this period. Dr. Day, in his valuable book on Diseases of Children, says "Vocal fremitus is diminished in small effusions, and abolished in large ones." In the two-year old child above mentioned fremitus was increased on the diseased side, from which twelve ounces of serum were withdrawn. In *The London Medical Record*, July 15th, p. 290, five cases are reported from Marianini on Pectoral and Vocal Fremitus, in which the fremitus does not follow the ordinary rules. "In three cases of pneumonia the fremitus was *diminished.*" "In the case of tuberculosis with cavities, he found, on first examination, the pectoral fremitus was increased; some days later its intensity was decidedly diminished."

* * * * *

"The fifth case was one of pleurisy, in which the pectoral fremitus over the affected part was of the same intensity as on the sound side." He concludes:

"1. In some cases of pneumonia instead of increase of the pectoral fremitus there is diminution. 2. The interpretation is not that given by Hoppe. 3. With bronchophony in pneumonia there may be diminished pectoral fremitus. 4. In cases of pulmonary cavities there may be at different times in the same individual a different result with regard to the pectoral fremitus, owing to modifications which may take place in the contents and walls of the cavities. 5. In pleurisy, contrary to what is ordinarily held, the pectoral fremitus may not only remain the same as on the sound side, but may even be reduced." ("Reduced" is probably a misprint for "increased.")

Absent or diminished vesicular sound, with or without bronchial breathing, is usually to be observed in pleuritic effusions of any considerable extent. In children under five years the respiratory sounds are rarely absent though of diminished intensity, and more remote than when altered by a solidified lung. Bronchial breathing commonly replaces the vesicular sound, but not invariably. Above the line of effusion the breathing may be "harsh, tubular or hollow," and somewhat exaggerated on the sound side. In adults the voice and breath sounds are always weakened, and as the effusion progresses are frequently altogether wanting on the diseased side, while the breathing becomes puerile on the sound side. Displacement of heart and abdominal organs are very frequent, especially in the adult, when the effusion is large and of long standing. In childhood, when the chest walls are less resistant, displacements are not so common. In the infant, and in the two-year old child before referred to, no displacement was observed. When the effusion is on the left side, the apex beat may often be seen and felt beneath or to the right of the sternum. When in the right pleural sac, it may be found to left of mammary line, or even in left axilla. (*Anstie*, *Reynolds' System.*) When the fluid is in the right pleural sac, cardiac displacement is less likely to occur, and when it does occur is usually of less extent. The differential diagnosis of pus from serum can only be positively established by seeing the fluid.

Dr. Wilks says (*British Medical Jour.* Vol. I., 1879, p. 528) that when, after an attack of acute pleurisy, or of pleuro-pneumonia, "there result localized dulness, with

absence of breath-sound, and perhaps distant tubular breathing, an empyema may be safely suspected."

Dr. Day thinks "a peculiar anæmia, with an earthy complexion, and, above all, clubbing of the finger ends," more characteristic of empyema, quoting T. Barlow, M. D., and R. W. Parker, as authority. (*Diseases of Children*, p. 440.)

Dr. Steiner says when the exudation is purulent, there is a continuous and extremely high temperature. (*Diseases of Children*, p. 171.)

In two of the five cases recently seen by the writer, clear pus was found, and in neither case was there either peculiar anæmia, earthy complexion, clubbing of the fingers, or high temperature found. When the patient is a child, enfeebled, with bulging of intercostal spaces, and the other ordinary signs of fluid are present, we have good grounds for suspecting empyema. "Out of forty-four cases admitted as in-patients at Great Ormond street, twenty-seven were empyemata." "Taking another series of sixteen cases, fourteen were empyemata." (*Notes on Pleuritic Effusion in Childhood*, by T. Barlow, M. D., and R. W. Parker, *British Medical Journal*, Vol. ii., p. 759.)

Dr. Anstie considers empyema rare in adults, and Dr. Lewis Smith finds it much more frequent in childhood.

The diagnosis of pleuritic effusion, as well as of its special character, must finally rest on puncture of the chest and the withdrawal of a portion of the fluid. It is commnnly advised that this be done with a hypodermic syringe, and Dr. Smith says: "Nowadays, however, no one would be justified in performing thoracentesis unless he first employed the hypodermic syringe, and removed fluid at the point which he selects for puncture." *Diseases of Children*, p. 599.) For this I can see no sufficiently good reason, and there are, in my judgment, good reasons why it should not be done if a suitable instrument is at hand for withdrawing the fluid. The hypodermic syringe, owing to the small size of its tube, will often fail to withdraw fluid, serous or purulent, when it is undoubtedly present. It is nearly, if not quite, as painful to introduce a hypodermic as an aspirator needle. The use of the aspirator needle is perfectly harmless. I have never seen even a small child suffer the slightest annoyance from it five minutes after its withdrawal.

Dr. Anstie says, quite correctly I think: "By the use of the small canula we are able to operate without risk, because in the case of an entirely mistaken diagnosis we should have done no damage, even though we had perforated a consolidated lung, a solid tumor, or an intercostal artery. The suction power of the vacuum-syringe will enable even thick fluid, such as somewhat concentrated pus, to be withdrawn through the smaller-sized canulæ; but the puncture is such a trifle that, in case of our desiderating a larger tube, the smaller one can be withdrawn, the finger being pressed on the spot as it emerges, and the more capacious canula introduced at the same place." (*Reynolds' System*, p. 945.) Moreover, the use of the hypodermic syringe makes it necessary to duplicate the operation, and consequently the suffering of the patient. I have therefore abandoned the use of the hypodermic, except when it is desirable to make the diagnosis positive in the absence of a suitable instrument for withdrawing the fluid. I would even go a step further than Dr. Anstie and advise that the smaller canulæ should not be used at all. There is little or no increase of suffering from the use of the larger aspirator needle of Dieulafoy, the danger remains insignificant and the withdrawal of the fluid is certainly accomplished. In a child of five years, the first of the series of five recent cases, I twice aspirated with the second sized needle of Dieulafoy, withdrawing four and eight ounces of creamy pus, when on each occasion it refused to continue to flow, though it was quite obvious a considerable quantity of fluid still remained. Several weeks later thirty-two ounces of pus of the same character were removed through a larger needle, clearing up the dulness entirely. Two weeks ago I aspirated a peri-arthritic abscess at the hip, using the next largest needle, and was fully a half-hour in emptying the abscess, the pus flowing slowly, drop by drop. All surgical operations should be as speedily accomplished as is consistent with safety. In operations on children for pleuritic effusion, when for any reasons anæsthetics are not used, the danger, so far as there is any, is enhanced by protracting the operation, for the child grows restless and can not be held quite still, so that the danger of puncturing the lung is greatly increased.

Selected Paper.

ON OLD AND MODERN POISON LORE.*

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The modern word toxicology has a deep significance, it can be traced back to an ancient root, meaning "bow" or "arrow," or in a wider sense some "tool" used for slaying. The oldest poison lore was that of primitive races in various parts of the world, who, in remote unhistoric time, took a lesson from the snake, and remedied the imperfection of their weapons by steeping them in venom.

The arrow poison of the Gauls is said to have been hellebore; that used by certain American Indians is curarine, a vegetable extract from plants of the Strychnos order. Some races adopted snake poison, and others putrid blood; this last producing a disease termed in our day septicæmia, or blood poisoning. In this way the septic poisons may have been very early known.

Weapons soiled with the blood of former wounds would be found more deadly than clean, freshly-made weapons; and starting from this empirical fact, the arrows or spears would be steeped in all manner of offensive pastes and smeared with the vegetable juices of those plants which were deemed noxious; and as the effects were mysterious, they would be ascribed to the supernatural powers, and covered with a veil of superstition. The poisonous properties of arsenic, opium, henbane, aconite, and a few others were known to the ancients and handed down by oral tradition as a part of priestcraft, long before they were reduced to writing; the exact amount of knowledge thus transmitted in this way can only now be a matter of inference. On an Egyptian papyrus preserved at the Louvre, M. Duteuil read, "Pronounce not the name of I. A. O. under the penalty of the peach." Now peaches, as peaches, are perfectly harmless, but prussic acid may be distilled from them; the Egyptians were the first known to have practised distillation, hence under the dread threat of the peach it is clear enough that they meant prussic acid; this is probably the earliest evidence extant of the actual separation of a poison in a more or less pure state by a chemical operation. No mention is made of prussic acid among the early Roman writers, yet there is good reason to believe that a knowledge of the deadly Egyptian distillate of peaches passed to the Romans. A knight in the reign of Tiberius, accused of high treason, swallowed poison and fell dead at the feet of the senators; no poison but prussic acid, and that in a tolerably concentrated form, would have this effect.

The early treatise of Nicander of Colophon (204–138 B. C.), to which followed Dioscorides, however, shows that whatever use or abuse might be made of a few violent poisons, Greek and Roman knowledge of toxic substances was stationary, primitive and incomplete.

The Asiatic races used poison more than the Northern or Western nations; the ancient practice of the Hindoo widow—self-immolation on the burning pile of her husband—is ascribed to the necessity the Brahmins were under of putting a stop to the crime of domestic poisoning. Every little conjugal quarrel was liable to be settled by this form of secret assassination, but the law seems to have effectually stopped the practice. The Asiatics knew the properties of arsenic, aconite, opium, and various solanaceous plants, but were not acquainted with prussic acid.

The part that poison has played in history is considerable. The pharmaceutical knowledge of the ancients is more graphically and terribly shown in the deaths of Socrates, Demosthenes, Hannibal, and Cleopatra, than in the pages of the old writers on poisons. In the early part of the Christian era, professional poisoners arose, and for a long time exercised their trade with impunity. In A. D. 26 poisoning was so much in use as a political engine that Agrippina refused to eat of some apples offered to her at table by her father-in-law, Tiberius. It was at this time that the infamous Locusta flourished. She is said to have supplied, with suitable directions, the poison by which Agrippina got rid of Claudius; and the same woman was the principal agent in the preparation of the poison that was administered to Britannicus by order of his brother Nero.

It was the custom of the Romans to drink hot water, and as no two men's tastes are alike, great skill was shown by the slaves

*A Lecture delivered at the International Health Exhibition on July 15th, 1884.

in bringing the water to exactly that degree of heat which their respective masters found agreeable.

The children of the Imperial house, with others of the great Roman families, sat at the banquets at a smaller side table, while their parents reclined at the larger. A slave brings hot water to Brittanicus, it is too hot; Britannicus refuses it. The slave adds cold water, and it is this cold water that is supposed to have been poisoned; in any case, Britannicus had no sooner drunk of it than he lost voice and respiration. Agrippina, his mother, was struck with terror as well as Octavia his sister. Nero, the author of the crime, looks coldly on, saying that such fits often happened to him in infancy without evil result; and after a few moments' silence, the banquet goes on as before. If this were not sudden death from heart or brain disease, the poison must have been either a cyanide or prussic acid.

In those times no autopsy was possible; although the Alexandrian school, some 300 years before Christ, had dissected both the living and the dead, the work of Herophilus and Erasistratus had not been pursued, the rudiments of human anatomy were only known, while as to pathological changes and their true interpretation, such knowledge had no existence. It was not, indeed, until the fifteenth century that the popes, silencing ancient scruples, authorised dissections; and it was not until the sixteenth century that Vesalius, the first great anatomist, arose.

In default of pathological knowledge, the ancients attached great importance to mere outward marks and discolorations. They noted with special attention spots and lividity, and supposed that poisons singled out the heart for some quite peculiar action, altering its substance in such a manner that it resisted the action of the funeral pyre and remained unconsumed. It may, then, fairly be presumed that many people must have died from poison without suspicion, and still more from the sudden effects of latent disease, ascribed wrongfully to poisons. For example, the death of Alexander the Great has been confidently ascribed to poison, but "Littré" has fairly proved that the great emperor, debilitated by his drinking habits, caught a malarious fever in the marshes around Babylon, and died after eleven days' illness. If, added to sudden death, the body, from any cause, entered into rapid putrefaction, such signs were considered by the people absolutely conclusive of poisoning—this belief prevailed up to the middle of the seventeenth century, and lingers still among the uneducated at the present day. Thus, when Britannicus died, an extraordinary lividity spread over the face of the corpse, which they attempted to conceal by painting the face. When Pope Alexander VI died, probably enough from poison, the rapid *post-mortem* change was noted, and considerable stress is laid upon it by the historian Guicciardini—but we know that such changes are utterly untrustworthy, some poisons indeed, such as arsenic, retarding putrefaction.

An essay might be written entitled Royal Poisoners. Charles le Mauvais, King of Navarre, gave a commission of murder to Woudreton, to poison Charles VI the Duke of Valois, brother of the king, and his uncles the Dukes of Berry, Burgundy and Bourbon; the infamous document is still extant; it directs Woudreton to purchase sublimed arsenic, to sneak into the kitchen, larder, or anywhere else, and drop the powder into the soups or meats.

Charles IX figures in the annals of human vivisection. There was a question whether bezoar was an antidote or not. The king decided the question by giving a cook convicted of some slight theft a lethal dose of corrosive sublimate, following it up with bezoar; but the man dies in seven hours, although Paré gives him oil—a grim business. Our own King John, of memory far from spotless, is said to have shut Maud Fitzwalter the Fair, in the highest, chilliest den of the Tower, and when neither cold, nor hunger, nor solitude broke her strength, when she still disdained his shameful suit, he foisted on her a poisoned egg, of which she ate and died.

The part that dynamite is playing in this age was played between the fifteenth and seventeenth centuries in Venice and Italy by poison—the criminal dynamite school of the nineteenth and the criminal arsenic school of the fifteenth in political basis—in reckless disregard of human life—are similar. The Council of Ten sat in Venice, decreeing the removal of this or that man. Curiously enough, the proceedings of the infamous oligarchy were recorded in writing with the utmost fidelity and candor; and in the strangest minutes ever penned, we may read now the reasons for and against the

proposed assassination, the number of votes on either side, the sum paid, and the success. I will give one example and only one. On the 15th December, 1513, a Franciscan brother, John of Ragubo, appeared before the Council of Ten, and offered his services to remove any objectionable person out of the way. For the first successful case he required a pension of 1,500 ducats yearly, which was to be increased on the execution of future services. The Presidents, Girolando Duoda and Pietro Guiarini, placed the matter before the "Ten" on the 4th of January, 1514, and on a division, ten against five, it was resolved to accept so patriotic an offer, and to experiment first on the Emperor Maximilian. The bond laid before the "Ten" contained a regular tariff, appraising the value of the lives of most of the men of note of the day, and concludes—"The further the journey, the more eminent the man, the more it is necessary to reward the toils and hardships undertaken, and the heavier must be the payment." In the seventeenth century there arose a band of poisoners in Italy; the most notorious of whom was a certain Toffana. She used arsenic in solutions of various degrees of concentration; her solution was called Acquetta di Napoli. She is on fairly good grounds suspected of having removed by means of Naples water, more than 600 persons, among whom were two popes. With the Acqua Toffana, the Acquetta di Perugia played at the same time its part. It is said to have been prepared by killing a hog, disjointing the same, salting it as it were with arsenic, and then collecting the juice which dropped from the meat. The juice was considered far more poisonous than an ordinary solution of arsenic; and recent researches on certain compounds which arsenic forms with organic matters lend countenance to this view. Toffana had disciples; Hieronyma Spara formed an association of young married women, one of the objects of which was the assassination of their husbands.

Italian and Venetian annals are not alone stained with these detestable crimes. The curious may read in Voltaire's History of Louis XIV's reign, the crimes of the Chambre ardente, of St. Croix, de Brinvilliers, the priest Le Sage, and the women La Voisin and La Vigoureux—of these Madame de Brinvilliers was specially infamous. She is said to be the inventor of "les poudres de succession," and essayed their strength on the patients at the Hotel Dieu. She poisoned her father, brothers, sisters, and others of her family, but a terrible fate overtook both her and her instructor and master in villainy, St. Croix. St. Croix was suffocated by deleterious vapours from his own chemicals. Madame de Brinvilliers' crimes being known, she fled and took refuge in a convent, from which she was lured by a detective, who disguised himself as an amorous abbé. She was beheaded and her body burnt near Notre Dame, in the middle of the reign of Louis XIV.

The old poison lore, mixed up with legend, myth and superstition, culminated in the use of arsenic. Arsenic, white, tasteless, and deadly, capable of introduction into the human frame in all manner of subtle ways, of killing slowly or quickly, and of simulating the effects of disease, was at one time almost synonymous with poison. For more than a century, after the properties of arsenic were to some extent popularised, there was no certain method known for its detection; and as late as 1836, whatever evidence of arsenical poisoning might be afforded by collateral circumstances, the risk of detection by chemical analysis was not great; hence the invention of a certain test for arsenic is so important that the date of its discovery marks a toxicological epoch, from whence we may fairly date the rise of the modern poison lore. The great chemist, Scheele, in the eighteenth century, observed that arsenic united with hydrogen made a very peculiar and fœtid gas. After him Proust also studied the gas, and observed that when arsenical tin was dissolved in hydrochloric acid, that the gas could be lit, and then when allowed to play upon a cold surface, stains of the metal arsenicum were deposited.

Trommsdorf next announced, in 1803, that when arsenical zinc was introduced into an ordinary flask with water and sulphuric acid, an arsenical hydrogen was disengaged, and if the tube was sufficiently long, arsenicum was deposited on its walls. Stromeyer, Guy Lussac, Thenard, Gehlen and Davy later studied this gas, and Serullas, in 1821, proposed this reaction as a toxicological test. Lastly, in 1836, Marsh, a chemist at Woolwich, published a memoir in the *Edinburgh New Philosophical Journal*, entitled "Description of a new process of sepa-

rating small quantities of arsenic from substances with which it is mixed." On the basis of the work done by the pioneers already enumerated, Marsh arranged an apparatus of great simplicity, which is known under the name of Marsh's test. The method is now in use, and will separate, with certainty, a millionth of a grain of arsenic—thus the most tasteless and the easiest administered poison in the whole world is also the one which it is easiest to detect.

Modern poison lore is distinguished from ancient poison lore by its extent, by its exactness, by the laborious compilation and verification of its facts, by the application of various instruments of precision, both at the bedside and in the laboratory. In modern times the throbs of the pulse, the respiratory waves, and even the functional enlargements of internal organs, are made to record their own movements on strips of paper, moved by clockwork, and adjusted by mechanism of an ingenious character. The number of degrees of temperature gained or lost is registered by thermometers. The channel by which the poisons leave the body is determined by chemical analysis, and by the same means we know much relative to the localization of a poison in different tissues.

It is just about as difficult for the toxicologist to say how many poisons there are at present known, as for the botanist to enumerate existing species. By varying methods of classification all kinds of numbers could be obtained in either case. In the following statement, I have counted such substances as lead, copper, arsenic, antimony and the like, as single units. Each of the metals named enters into a very large number of combinations, all of which are more or less poisonous, and which, if each compound were enumerated, would swell the total to a big figure. In like manner, although in the common foxglove (digitalis) there are several poisonous principles, yet they are so nearly allied that they may be all included under one head, and so on, with other cases, proceeding in this way:

Inorganic solid poisons	19
Liquids, more or less volatile, and many anæsthetic, such as ether, chloroform, methylene, benzene, alcohol, etc	18
Acids, both organic and inorganic	10
Alkaloids	51
Glucosides	20
Organic anhydrides	2
Complicated animal and vegetable poisons not yet fully classed	26
Gases	14
	160

I get a total of 160 poisons as about the number at present known to science; but not more than 40 of these ever figure in the Registrar-General's reports as a cause of death, and over 60 are chemical rarities, not existing in ordinary commerce.

Previous to the nineteenth century more than seventy of these poisons were either unknown, or only known as vegetable extracts; it is the glory of modern chemistry to have separated from plants most of the active principles in a perfectly pure state, and to have shown that what was formerly considered simple is really complex. Take, for example, opium; it has been known as a narcotic from the earliest times; before 1803 no one ever imagined that it contained more than one active principle, but in 1803 Derosne separated from it morphine and narcotine, and at the present time no less than twenty-one definite principles, all having different physical, chemical and physiological properties, some, indeed, antagonistic, have been separated from this wonderful drug; or take aconite, that has been from the most remote times the favorite poison in India. Aconite, or the common monkshood, contains six alkaloids, two of which alone seem to be physiologically active. Digitalis, the common foxglove, contains at least seven closely related and yet not identical principles; and, in short, it is now evident that poisonous plants generally contain a family group of poisons.

Life mainly rests on a tripod, heart, brain and lung. Some poisons act specially on the heart, others concentrate themselves on the lungs, and others ascend to the brain, but a great majority irritate and inflame the fine velvet lining of the great convoluted tube of the body, and only act indirectly on the cardiac, nervous, and pulmonary systems. I have calculated that about 19 per cent. of the 160 known poisons act directly on the brain and spinal cord, either lulling to preternatural sleep, or exciting to preternatural activity; 5½ per cent. affect the respiration, a little over 4 per cent. affect the heart primarily, while no less than 39 per cent. are irritants; as for the remainder, their action is so mixed that they seem

to affect various organs at one and the same time.

I have no intention of describing to you the symptoms produced by toxic substances, but take the opportunity of pointing out in a general manner the wonderful mimicry of disease produced by certain poisons.

The fatal bite of the Cobra di Capello not unfrequently produces all the effects of a somewhat rare malady known as glosso-pharyngeal paralysis, or, in plainer English, palsy of the tongue and throat.

Atropine, the active principle of belladonna, will produce a dry sore throat, a vivid rash on the skin, a quick pulse, a high temperature, with delirium; the resemblance to scarlet fever is completed by a slight desquamation, or subsequent peeling of the skin.

A large fatal dose of arsenic mimics cholera; there is the same excessive depletion of all the fluids of the body by one channel, the vomiting, the collapse, and rapid death. Phosphorus produces jaundice; strychnine simulates tetanus, and the symptoms have been mistaken many times for hysterical convulsions.

Madness has been produced by lead. Last year I saw in Dr. Rayner's clinic at Hanwell some remarkable examples of this; in nearly all cases there were illusions of sight. One patient saw round him wind bags blown out to look like men; these apparitions floated after him and very much worried and alarmed him.

A more terrible form of brain disease has been produced by an artificial poison. Some years ago mercuric methide was prepared in a London laboratory, and two young chemists, engaged day after day in its manufacture, became ill from breathing the vapour; complicated symptoms of brain disease appeared, which culminated in idiocy, and they both died.

Mercuric methide is not, however, the only poison which may produce insanity or idiocy. The dhatoora of the Hindoos, which is identical with belladonna, has in Indian history played the peculiar *role* of a State agent, and has been used to produce imbecility in persons of high rank whose mental integrity was considered dangerous by the despot in power. It usually, however, produces but a temporary insanity; in one case after a toxic dose a tailor sat for four hours moving his hands and arms as if sewing, and his lips as if talking, but without uttering a word. The "insane root that takes the reason prisoner" may be found among the solanaceous plants. In an ancient cloister the monks ate in error henbane root, and in the night were all taken with hallucinations, so that the pious convent was like a madhouse. One monk sounded at midnight the matins; some who, thereupon, thinking it was morn, came into the chapel, opened their books, but could not read; others declaimed; some sang drinking songs of a character not befitting the place; and the greatest disorder prevailed.

Several poisons produce ulcerations and skin diseases. The remarkable malady, first described by Dr. B. W. Richardson, under the name of the bichromate disease, is another example of similarity between an artificially induced affection and one which seems to occur spontaneously. Potassic bichromate is made on a large scale, and the workmen who inspire the dust through the nose suffer from an inflammation of the septum, which ultimately may be destroyed by ulceration. It also causes painful skin affections—eruptions like eczema and psoriasis, and very deep and intractable ulcerations. The effects of the bichromate are not confined to men; the dust gets in any crack the horses at the factories may have about their hoofs, and causes an ulceration from the effects of which even the hoofs may be shed.

If glosso-pharyngeal paralysis, scarlatina, affections of the skin, tetanus, insanity, and idiocy may be either simulated or produced by drugs, on the other hand, certain diseases simulate the symptoms of poisoning, and the most rational explanation of these cases is that the body itself manufactures its own poison. One of the best examples is that known as "diabetic coma." In diabetic coma, there is first mental confusion, in which the person may wander aimlessly about the streets, and have somewhat the appearance of ordinary intoxication; then follows irresistible drowsiness, and ultimately death,—altogether a series of phenomena which might be well mistaken for the narcosis of opium or alcohol.

The establishment of almost perfect antagonism between certain vegetable poisons belongs to modern poison lore; for example, atropine is antagonistic to pilocarpine; atropine makes the skin dry, pilocarpine causes in five minutes a profuse perspiration;

atropine dilates the pupil, pilocarpine contracts it. The heart of an animal arrested by atropine can have its tick-tick restored by the direct application of pilocarpine. Poisoning by pilocarpine is relieved and cured by atropine; poisoning by atropine is relieved and cured by pilocarpine.

The relationship between chemical composition and the direction of toxic activity also belongs to modern poison lore; the alkaloid strychnine, which causes powerful tetanus, may be changed by the chemist into another alkaloid which produces the opposite effect—paralysis; morphine, a drug producing sleep, may also be transformed by a very slight chemical metamorphosis into an emetic.

In being obliged to avoid any detailed account of the symptoms of poisoning, I cannot omit to point out the errors of most of the popular descriptions. Few dramatists have been happy in the description of death from poison; the death of Cleopatra, described by Shakespeare as resulting from the bite of a venomous snake, is like no clinical description of fatal illness from bites of any class of snakes. In Philip Massinger's play, "The Duke of Milan," Francisco dusts over a plant with a poisonous powder; this plant Eugenia holds; Ludovico Sforza kisses her hand twice, and from this slight contact very rapidly dies—why, it is doubtful whether pure aconitine itself, the most powerful of all known substances, and only separated within the last few years, could be inhaled under these conditions in sufficient quantity to do harm.

Beverley, in Edward Moore's "Gamester," takes poison in the fifth act, after which he makes several pretty long speeches, and ultimately dies suddenly, but, so far as we can learn with considerable calmness. Nathaniel Lee, in his tragedy, "Alexander the Great," provides a poison for the destruction of the emperor, which is described as of "exalted force."

"* * mixed with his wine a single drop gives death,
And sends him howling to the shades below."

Nevertheless, after taking the poison, Alexander walks about, declaims much, kills Clytus, and goes through the latter part of the fourth act, and most of the fifth, comfortably enough; then raves in delirium, regains his senses, and dies after a very fine speech. There was no poison known to the writers of the plays alluded to which would produce symptoms in any way similar. At the present day there is, however, a liquid made by artificial means, the effects of which are stranger than those imagined by play-writers—after it is swallowed, the person walks about for an interval of time varying from a quarter of an hour to two hours. His skin, and even the whites of the eyes, become of a strange purplish lived color, but he may feel fairly well, then the fatal symptoms set in with appalling suddenness, and he dies in a few minutes. For anyone who delights in constructing stories of sensation, these occasional effects of nitrobenzine, just described—the weird blue color, the interval allowing of acts and rhapsodies, and the abrupt termination, afford considerable, although perhaps not commendable scope.

If progress has been made in the discovery of new poisons, and new methods of detection, so also progress has been made in the treatment of poisoned persons. Take, for example, the modern treatment of a patient suffering from a toxic dose of strychnine. In chloroform we have not a chemical but a physiological antidote. Death takes place from the terrific spasms affecting the breathing. If chloroform be inhaled, and the nervous system lulled to sleep, time is afforded for the elimination of the alkaloid by the natural channels, and a chance is given to an otherwise hopeless case. In turpentine we have a most wonderful antidote for poisoning by phosphorus; and the more complete, for it seems to follow and catch up as it were the phosphorus, even when circulating in the blood.

Few of us contemplate the possibility of accidental poisoning in our own households; yet among the daily necessities of civilized life, very active poisons hold their place. Bleaching powder, carbolic acid, salts of sorrel and even some forms of washing blue are deadly enough, and from time to time are the cause of accidents. The proper antidote for these ought to be in every house, and the elementary knowledge of the proper treatment of such accidents should be known by all.

There was an ancient myth, long believed, that certain stones changed their color at the approach of poison, and that there were also a substance which would neutralize every poison. This is no longer thought probable or possible. Nevertheless,

attempts have been made with some success to compound a liquid which plays the *role* of a multiple antidote. One of the best consists of a saturated solution of sulphate of iron, 100 parts; magnesia, 80; animal charcoal, 44 parts; water 800. It is preferable to have the animal charcoal and magnesia mixed together in the dry state and kept in a well corked bottle; and when required for use, the saturated solution of sulphate of iron is mixed with eight times its bulk of water, and the mixture of charcoal and magnesia added, with constant stirring.

The multiple antidote may be taken in wineglassfuls once every ten or twenty minutes in recent poisoning by arsenic, zinc, opium, digitalis, mercury or strychnine.

As to immediate treatment of other common poisons. In poisoning by acids use calcined magnesia, or carbonate of soda, or any bland oil. In poisoning by caustic soda vinegar should be given. A good domestic emetic is sulphate of zinc, which now may be bought of most chemists in the form of convenient tablets. With the simple remedies named, that is, multiple antidote, calcined magnesia, vinegar, sulphate of zinc tablets, and let us add, for phosphorus, a small bottle of French turpentine, a cupboard may be stocked, and thus, for a few shillings, precautions taken against an emergency which may arise at any moment.

The use of poison by man I have thus first traced to the barb of the arrow envenomed by vegetable extracts; later, poisons were used in a more subtle manner; the stroke in daylight was replaced by the poisoned chalice; but at the same time it was found that poisons were also medicines, and able, when used legitimately, to preserve as well as destroy life. Later still the very essences of the plant world were separated as pure crystalline forms, and, aided by instruments of precision, their properties studied in all manner of ways. Rays of light, from the development of physiological and other sciences, were brought to converge upon the general subject; and modern toxicology, though far from perfect, has rendered the crime of secret poisoning a dangerous game to the player. An important part of modern poison lore has been built up by experiments on animals. All that has been done in the past in this direction I cannot justify; but these experiments have for the most part been undertaken by noble and humane men, for noble and humane purposes. If these experiments have increased the ways of death, they have multiplied the means of recovery; they have given to the physician many a potent elixir, charming away pain and restoring health. They have enlarged our knowledge of the action and nature of remedies, and have proved safeguards against illicit criminal practices. These experiments have shown that certain poisons are so potent and subtle in their action as to almost equal the wonders in tales told of charms condensed in necromancers' phials. The animal body can be played upon as if it were a machine. The strokes of the central pump can be slowed or quickened; the vital heat lowered or increased; the pupil of the eye expanded or narrowed; the limbs paralysed or convulsed; the blood sent to the surface or withdrawn to the interior; even the natural hue and color of the body can be changed. If it be asked, cannot this strange science become, in the hands of an unscrupulous, abandoned, and yet learned man, a power of destruction fearful to contemplate? The answer is, the risk of this is small. The higher kind of brain is a moral brain; the highest scientists are the most religious, it may not be religion of special creeds, it may not even be a Deistical religion; but no one who has observed the phases of thought of the nineteenth century can with truth deny, that side by side with the evolution of physical and natural science, there has also been an evolution and practice of the purest doctrines of Krishna and Buddha; if indeed it were not so, and the most exalted intellects abandoned themselves to the secret destruction of their fellow creatures, the results would be disastrous. As for the ordinary criminal mind, like that of the Comte le Pommerais, who specially prepared a then almost unknown alkaloid, or the surgeon Palmer, or still more recent semi-scientific murderers whose names I pass over in silence, there is absolutely no ground for believing that they could escape detection; however cunning they may think themselves, however rare the agent they may employ, the toxicologist has weapons and means at his command to diagnose the sickness of nature from that of malignant art, and to separate and identify the poison.—*London Med. Times and Gazette.*

Society Reports.

BALTIMORE MEDICAL ASSOCIATION.

STATED MEETING, HELD MAY 26TH, 1884.

(*Specially reported for Md Med Journal.*)

The Association was called to order by the President, Dr. E. G. Waters.

A Case of Anteflexion in which Mechanical Treatment was Contraindicated.—*Dr. Erich* related the following case: A patient came to him to be treated for acute anteflexion. He found the left ovary enlarged and sensitive, the right also, but to a less degree. There was pain on pressure over the uterus. Menstruation was more frequent than formerly. The menses were preceded by severe pain which ceased after their establishment and did not recur until the next period. There was anteflexion, a decided bend, but no sharp kink, no obstruction. She was suffering from inflammation of both ovaries and connective tissue. Any mechanical treatment would have aggravated her sufferings. Under the treatment addressed to the condition of the ovaries and cellular tissue her headache and backache have been decidedly benefitted, and her condition has been much improved. Anteflexion is normal and only when excessive should it be interfered with.

Placenta and Cord.—*Dr. J. E. Gibbons* opened this, the subject of discussion, with the following paper: As an introductory to the few thoughts expressed in this paper, it will be necessary to give a brief description of the placenta and cord. The placenta is that vascular mass by which the circulation is maintained between mother and child. During the entire period of its existence it fills the important office of both stomach and lungs to the fœtus. The umbilical cord is a flexible trunk which unites the abdomen of the child to the placenta. It varies in length from four inches to sixty-nine—the average being about twenty-three inches. The vessels of the cord are two arteries and a vein. The arteries arise from the internal iliacs of the fœtus and passing out at the navel run spirally through the cord—generally from left to right—without any communication between them until they reach the placenta, where they inosculate freely. Their terminations, together with the origins of the umbilical vein, constitute the vessels of the placenta. The vein arising from the placenta has no valves—it passes along the cord to the umbilicus and enters the circulation at the left side of the liver—dividing into three branches—one branch going to left lobe of liver, one to right lobe and the other through the ductus venosus, to the hepatic vein. The arteries really perform the functions of veins, and the veins of arteries—inasmuch as the arterial blood is carried from the placenta to the fœtus by the vein and the venous blood after losing its nutritious properties, in its round through the system of the fœtus, is returned to the placenta by the arteries.

So much, then, for the anatomy and functions of the placenta and cord. The welfare of the child, and indeed its very life, depend upon the condition and management of the cord. So that from the very beginning of life, and even to the end, our lives may be said to hang upon a single cord. On the 20th day of February, 1884, I delivered a primipara. The child was with difficulty induced to breathe. The cord pulsated freely and was not divided for sometime; but the idea occurred to me that depletion might help the child, and the cord was accordingly cut and allowed to bleed freely before applying a ligature. I noticed during this time that the fœtal side of the cord was still pulsating. I thought that I had made a discovery. I had practiced sixteen years, and had always felt that it was safe to leave the cord untied as long as pulsation continued, supposing that the child was receiving more blood with each pulsation of the cord. On my way home I met a physician, to whom I told the story of my new discovery. He said, "Yes; I have always regarded the pulsation in cord as evidence that the child was being nourished by blood sent from the placenta at each beat. We are taught," said he, "not to sever the cord too soon if the child is feeble." Imagine my feelings when I referred to a work on obstetrics and read a description of the placenta and cord. I found that I had discovered nothing new, but had only observed an important anatomical fact, one which I ought never to have lost sight of. I felt truly ashamed, but could not help wondering whether the physician I met on the way home and my-

self were alone in this erroneous idea. You know misery loves company, and so I sought it. I wrote this question: "The umbilical cord pulsates; which way does the wave move?" I presented it to every physician, old and young, whom I met, among them some of our most busy and prominent obstetricians, until I had seen about forty. A very large majority answered promptly, "from the placenta." Some answered, "I do not know—I never thought of it." A few others—four or five only—answered correctly, "from the fœtus." The few who were correct expressed themselves as very much surprised that any doctor should fail to answer such a question correctly. I should have been ashamed to make this acknowledgment before this Society had I not found so much very respectable company. I then concluded that it was of sufficient practical importance to bring for your consideration to-night.

Now, it seems to me that it is very important to ligate the cord at the proper time. At one time it was thought unnecessary to place a ligature on the funis, as no such precaution was adopted for the young of any other animal, but the occasional loss of the child soon upset this false philosophy. Then, again, we are advised by one class of practitioners not to interrupt the circulation in the cord, but suffer it to discontinue spontaneously; while a second class recommends the application of a ligature whenever respiration has freely commenced.

The circulation between the child and mother must be very greatly obstructed, if not entirely cut off, in a very large majority of cases at the time of delivery, for the contraction of the uterus at this time generally separates the placenta. What advantage, therefore, can it be to the child, after respiration is freely established, to have the ligature withheld for one moment? While the application of the ligature is delayed, the fœtal blood continues to be poured into the arterial ramifications of the placenta; but it may be doubted whether the mass, while retained in the contracted uterus or vagina, restores by the corresponding vein the blood which it has derived from the infant. If it does not, this must be a further inducement, after respiration has commenced, for interrupting the circulation through the cord, lest the fœtus suffer from exhaustion. If the fœtus be plethoric and robust a little delay will do no harm, but if delicate and feeble the life may be sacrificed.

In an old work called "Essays on Midwifery," by W. P. Dewees, a case is reported where, I believe, the child was allowed to bleed to death through the uncut cord. I give the report in full:

"On the 12th of May, 1794, at 8 o'clock A. M., a lady was delivered of a female child. The child did not cry or breathe, as is usual, immediately after delivery, but remained motionless for three or four minutes before any signs of respiration manifested themselves. I was surprised at this unusual delay, as neither the circumstances of the labour nor the appearance of the child could account for it. The labour was quick and natural; the child, though not very large, was apparently healthy and well formed; the pulsations of the umbilical arteries brisk. In a word, everything was as ordinary except the want of respiration. To establish this I inflated the child's lungs, after waiting the three or four minutes just mentioned, which, in part, succeeded as to its object. The child after this began to inspire slowly, the expiration was protracted and attended by a peculiar croaking kind of noise. Respiration was for some time carried on in a slow and irregular manner, the child sometimes breathing pretty freely for a minute or two, and then appearing to be much oppressed and in pain; respiration would now be entirely suspended from ten to thirty seconds. The child during this time would writhe its little body as if much pained, its face would become livid, and the pulsation in the funis would be much augmented. After this kind of struggling would subside it would appear pale and lifeless as though it had fainted. In this manner did things go on until half-past two o'clock in the afternoon, a period of six hours and a half, at which time the umbilical arteries ceased to beat and the child expired. The cord during the whole of this period was, of course, suffered to remain entire. The pulsation did not cease suddenly, as the forces of the arteries were observed gradually to diminish some minutes before they ceased to beat."

Now, might not the life of this child have been saved if the cord had been ligated at the time when it breathed "pretty freely for a minute or two?"

Now, let me sum up a few of the most important points:

1. The wave of pulsation in cord moves

from the fœtus toward the placenta, the impulse being given by the fœtal heart, and is proof that the child is living.

2. Ligate the cord as soon as the child breathes freely, because it is losing blood at every pulsation of the cord.

3. If the child is feeble it is hazardous to delay ligation of the cord for a moment after it has breathed freely, lest it suffer from exhaustion.

4. The common practice of waiting in case the child is feeble, with the view of allowing it to receive more of the maternal blood, is wrong and is directly opposed to sound reason.

Dr. Morris said the child was of course nourished through the umbilical vein. He always directs when the doctor is not present, that they should wait one to two hours before cutting the cord.

Dr. Erich spoke of the changes taking place in the circulation at birth, and said the danger from hemorrhage of the cord by way of the placenta was very slight indeed. There is usually no risk in cutting the cord. There is very little nourishment obtained from the placenta after the child is expelled.

Dr. Browne spoke of Budin's investigations which prove that the new-born child gains in weight before the cutting of the cord. He was under the impression that the weighings took place some hours after birth. Was not able to say whether the increase of weight continued after the expulsion of the placenta.

Dr. Morris said that at the beginning of his practice he used but one ligature; now he always used a second with a view to retaining the blood in the placenta, and causing it to be expelled more readily.

Dr. Erich hoped Dr. Gibbons would continue his investigations.

Dr. Gibbons closed the discussion. He pointed out that there was no direct connection between the mother's vascular system and that of the child in the placenta; no blood escapes from the placenta on holding it up, and on injecting its arteries the fluid returns by the veins. Where the attendants do not know how to tie the cord, in the absence of a physician the recommendation of Dr. Morris is best. In regard to the case reported by Dewees the placenta remained in utero the entire time; the condition of the placenta after its expulsion was not stated in the report.

The Association then adjourned.

Reviews, Books and Pamphlets.

Materia Medica and Therapeutics: An Introduction to the Rational Treatment of Disease. By J. Mitchell Bruce, M. A. Aberd., M. D. Lond., F. R. C. P., Lecturer on Materia Medica and Therapeutics, Charing Cross Hospital, etc. H. C. Lea's Son & Co. Philadelphia: 1884. 12mo. Pp. 547.

This duodecimo is one of the excellent manuals for students of medicine, being issued by the above enterprising house. It is, however, by no means a mere skeleton or outline of the subject, but may well compare with more pretentions works in point of matter. It is chiefly therapeutical in scope, but the botanical and chemical aspects of drugs are assigned a proportionate space. Under the head of special therapeutics the author pursues the plan of tracing the action and uses of drugs in their passage through the body from their entrance to their exit. The work is divided into three parts, the first devoted to inorganic materia medica, the subjects being grouped as alkalis, metals, acids, etc.; the second part treats of organic remedies, vegetable and animal; part three is devoted to general therapeutics, and here, instead of grouping remedies according to their effects, they are classified according to the physiological systems of the body, respiration, digestion, etc. This novelty of arrangement has caused the incorporation of much useful information of a physiological and pathological kind which cannot fail to increase the value and popularity of the book.

The work can be safely recommended without hesitation as a safe and reliable guide upon the subjects of which it treats.

E. F. C.

Nux Vomica as a Galactagogue.—Dr. Posada Arango speaks very highly of the good effect of nux vomica as a stimulant to the secretion of milk. He gives ten drops of the tincture three times a day, and explains its galactagogue properties by its action on the mammary gland, exciting it to secretion, and by its stimulating action on the stomach facilitating digestion. He recommends strychnia in recent cases of complete suppression of the secretion.—*London Medical Record.*

Editorial.

Priority in the Discovery of the Bacillus of Cholera.—The adage that "there is nothing new under the sun" is illustrated in medical discoveries no less than in other departments of human progress. There cannot anything be brought forward, no matter how novel, but some one can be found who will have seen it, read of it, thought of it, dreamed of it, or suspected it before. It is no wonder then that in regard to Koch's cholera bacillus there should arise prophets, who have inadvertently hid their light under a bushel, and allowed the fame which of right belonged to them to be usurped by another. In the last issue of the *Lancet* we read, in a letter from Rome, that Prof. Filippo Pacini, of Florence, lately deceased, well known as the discoverer of the tactile corpuscles of the skin which bear his name, wrote in 1854 of "a very simple organism of extreme tenuity," which he called microbe, or "cholerigenous microbe," and which he found on the epithelium of the gastro-intestinal tract. No further details are given by which the organism in question can be identified as that lately discovered by Koch. According to the correspondent, this discovery was quickly appropriated by foreigners, and being rehabilitated by the German Cholera Commission, is now being adopted and taught in the pathological institutes of Italy, just as Pacini predicted it would be. It may be that Pacini, with the eye of genius, pierced the veil and foresaw the importance of his researches, but either the medical world was not yet prepared to receive such an announcement, or else he did not press it with that urgency and ardor of conviction and that ample array of facts which characterizes the great discoveries of men of genius, and consequently it was reserved for others to reap the reward. But in order that he may share in the glory of the achievement, it must be clearly established that the microbe which he described is identical with that of Koch, and on the bare assertions of the *Lancet's* correspondent this does not follow.

A better founded claim might be based upon some researches made in 1866 by Dr. J. Syer Bristowe, of London. It appears from a communication in the last number of the *Lancet* that Dr. Bristowe examined the intestines of some mice to whom Dr. Burdon Sanderson had communicated the cholera, as Thiersch had done previously. In his report, published with the Ninth Report of the Medical Officer of the Privy Council, he mentioned having found throughout the intestinal tract vast numbers of low vegetable organisms, moving or stationary, also round or oval well defined thick-walled cells apparently parasitic, also "*numerous oval, slightly curved cells with a single nucleus*," of the nature of which he is unable to form a decisive opinion. Dr. Bristowe had even forgotten these circumstances until reminded of them by Dr. Wilks, who "charged him" with having discovered the Koch bacillus in 1866. Upon reflection, however, he was able to recall the facts connected with the researches in question, and even to reproduce from his note book sketches of the bodies mentioned above in italics, and which are figured in his communication to the *Lancet*. He was working at the time with very high powers of the microscope (500 to 2,000 diameters). The bodies present the comma-like form of the bacilli of Koch, and it can scarcely be doubted that they are identical. Unfortunately the rapid subsidence of cholera and its non-appearance in England since prevented the continuance of Dr. Bristowe's investigations. Of course he does not claim the discovery upon an incident long since forgotten, and yet he cannot avoid remarking "how closely one may approach a discovery and yet fail to grasp it." The circumstance has therefore only interest as showing how Koch's discovery was foreshadowed and as to a certain slight degree confirming it.

Hygienic Institutes.—The growth and development of the department of hygiene is one of the most characteristic features of modern medicine. It is to this that we owe our comparative exemption from those terrible pestilences that swept nations of mediæval Europe, and in no other department does the future hold out a more brilliant promise and perspective than in this. The time has come when the general study of this subject must be systematically undertaken, and it becomes a question of supreme importance how this can be best promoted. It is evident at a glance that it cannot be safely left to individual effort and exertion, although it may be said that

to philanthropic men of large means—the Peabodys and Smithsons of the day—no other opportunity offers itself for handing down one's name to posterity with honor and promoting the welfare of mankind in general, which can for a moment be compared with this. Desultory investigations here and there might add and are adding somewhat to our knowledge of sanitary laws, but it needs the combined efforts of many working in the same direction, and fitted by special study and preparation for such work, in order to achieve the best results. There must be the leisure necessary to make extensive and prolonged experiment. This cannot be done without means, and means are not at the command of individual workers; and if they were we can hardly expect that they will be devoted to a purpose from which there can be no expectation of adequate pecuniary return. But few of our colleges have endowments sufficient to set such works on foot, and the time is distant in which they can be expected to accomplish much in this direction. It therefore remains for the Government or the States to undertake it. The National Board of Health, or some similar organization, would seem to be the proper instrumentality for carrying it on, and what the former accomplished during the brief period of its active existence justified the conclusion that the work could not be entrusted to better hands; but it is well nigh useless to urge anything in favor of this body, which is barely allowed to exist by the sufferance of our legislators at Washington.

What we want is a well equipped institution, located at the Nation's capital, amply provided with funds and with all modern appliances for conducting the most elaborate hygienic investigations. It must be presided over by experts, men not only trained in the methods of scientific research, but who have demonstrated by what they have actually accomplished their capacity for original work. None but the most capable men should be employed, and as expert skill and knowledge command high pay, they should receive liberal salaries. Such men would soon be available, if they are not even now.

The only institution of the sort here contemplated, of whose existence we are cognizant is that recently established in connection with the University of Berlin, and placed under the charge of Dr. Robert Koch. This is still in its incipiency, although under so able a head much may be expected from it. Of course there are chairs of hygiene in numerous universities, but in none of these, as far as we know, is the work of research carried on in the experimental manner here indicated. The relations of the Universities in Germany to the General Government, however, are entirely different from those prevailing in this country, and hence the plan pursued at Berlin is not feasible here. The Institute—if under Government auspices—must therefore be independent of the colleges.

In concluding these suggestions, necessarily brief and incomplete in comparison with the vast interests involved in the subject, we can only urge with all the influence we possess, that the matter shall receive the earliest attention from the National authorities. In many respects we are more progressive as a nation than the older governments of Europe; why should we not show equal advances in a department which is so vitally connected with the welfare and progress of mankind, and by which even now the standing of nations in point of civilization and advancement is being judged?

The Medical News and the College of Physicians and Surgeons.—The editorial in the *Medical News* of July 19th, reflecting upon a "Baltimore Medical College" for alleged questionable practices, was calculated to do, and no doubt has done, injury to the medical institutions of this city generally. It is easy to comprehend that such a charge may reach a very wide circulation; and being indefinite, Baltimore Schools as a whole are associated with it in the minds of readers, and the discredit is shared by all. Many who will hear of the accusation will not read the denials and explanations. We will not say that our contemporary had any such purpose in view, but any slur upon the reputation of medical teaching in this city will inevitably advance the interests of that in our very near neighbor, and to some extent rival, Philadelphia. We must therefore express our decided disapprobation of the mode in which the *News* has brought the matter out; if it undertakes the rôle of a reformer, it should have the courage to publish facts at least.

As for the practice which has been the subject of censure, we can only repeat our disapproval of it, and our hope that it will cease from this time forth. At the same time we acknowledge that it is a matter about which there may be an honest difference of opinion, and are willing to grant full honesty of purpose to those who differ from us.

It is to be hoped that the agitation of the subject may lead to some agreement as to what is right and wrong, and thus promote the cause of higher medical education for which we all (theoretically) sigh.

As we have published the main points of the *News'* accusation, we herewith give those contained in the reply of Dr. Thomas Opie, Dean of the College of Physicians and Surgeons, "in behalf of that institution" published in the last number of the *News* (Aug. 16th):

In this the writer seeks to justify the practice which had been condemned. He says that in following the fashion of the times, and admitting students upon the "beneficiary plan", the College determined to do so "in an open, honest, manly, and business-like way. They first inclosed in their catalogues printed slips, and finally postal cards, containing a form of application for beneficiary scholarship, which medical preceptors could fill up and return to the Dean with as little inconvenience or trouble as possible, and thus save a great deal of troublesome correspondence and delay. In sending out these printed forms we did not and *do not* consider that we are indulging in "unlimited bidding" for students, because we regard our professional brethren as honorable gentlemen who will be guided by the specifications of our catalogue, and will only recommend such students as are properly qualified and are entitled to aid on account of their want of means. We solicit no one to avail themselves of this privilege; we only inform them *how* they can do it, and furnish them with the blank forms to save troublesome correspondence. If it is no shame to accept students at reduced rates—and even such eminently respectable and "first-class" schools as the medical departments of the Universities of New York and of Maryland, and many others equally first-class (according to their fee bills) announce in their catalogues their willingness to do so—it surely can be no more disgraceful to let preceptors and students know how they can avail themselves of the offer. Nor do we think that in doing this we are "degrading medical education", for we believe that that can only be done by granting diplomas to persons who have not qualified themselves for the practice of medicine."

The Etiological Significance of the Cholera-Microbe of Koch not Scientifically Demonstrated.—Dr. Charles Cameron, M. D., M. P., in his presidential address before the Section of Public Medicine, British Medical Association, admirable like everything from his scholarly pen, cautions us against too ready an acceptance of Koch's views as to the etiology of cholera. Four things are necessary, he says, before the etiological significance of the cholera-microbe can be accepted as a scientific fact: 1. Something that may be a microbe must be found in the blood or tissues in every case of the disease; 2, it must be shown by cultivation in artificial media to be a microbe, possessing its vitality apart from the organism of the animal in which it lives; 3, it must be shown when purified by artificial cultivation to be capable, if introduced into the systems of animals in which it can develop, of reproducing the particular disease; 4, before the results can be admitted as established scientific facts they must be corroborated by independent observers. All of these tests have been met in the case of anthrax, chicken-cholera and tubercle; the first three have been complied with in the case of malarial fever, glanders, diphtheria and yellow fever, but in the case of cholera not one of the four requirements has been met. Hence, while admitting the importance of the discoveries, "we are bound to reserve our judgment, and to refuse to act upon them as if they were established facts."

Dissensions in the Baltimore Medical College.—For some months past rumors have been afloat of inharmonious proceedings in the Faculty of the Baltimore Medical College. We now learn that these have gone so far as to result in a division and there are now two faculties, each claiming to be the rightful Baltimore Medical College. One faction, headed by Dr. Bryd, has secured a building in the eastern section of the city, while the Munroe party is entrenched in one in the northern part of the city. Each has issued a catalogue, and

matters are rapidly coming to a crisis. An early suit to determine who is legally entitled to the rights and franchises conferred by the charter, is forshadowed. Whatever the result, it is to be feared that the unsuccessful party will endeavor to secure a new charter (a matter of no great difficulty, unfortunately, in this State); this will add another to our already excessive medical institutions, a matter which in the interest of local professional reputation and ethics will be deeply to be deplored.

Miscellany.

Contribution to the Physiology of Mother's Milk, and its Relations to the Nourishment of Children—(*Arch. f. Kinderh.* [from *Jahrb. f. Kinderh.*, B. XX.], B. V., H. 7 and 8.)

Complete published analyses of mother's milk had been made only by Vernois and Becquerel previous to those which were made by the author, and he contends that their methods were defective. Consequently their results as to the quantity of sugar and fat were erroneous. The method which the author employed was the following: The casein is precipitated by alcohol or by dilute hydrochloric acid; next the albumen is precipitated by boiling; the sugar is obtained by filtration with an alkaline solution of cyanide of mercury; finally, the residue of albumen is obtained as a tannate. The fat is extracted from the casein precipitate with ether. The salts, which resist the action of heat, and the dry substance, which is very small in quantity, are also ascertained. During two years the author made one hundred and nine analyses, covering all the periods of the nursing epoch, the specimens being obtained from women who had borne from one to ten children. In almost every case he obtained the specific gravity, casein, albumen, fat, sugar, and salts. His results, as already said, do not agree with the published reports of other investigators. His first attempt was to ascertain the changes as to quantity which occur to the chief constituents of the milk during the progress of lactation. The milk of the first few days of the puerperium, the colostrum, differs chiefly from that which is subsequently secreted in the fact that it is coagulable by heat, but it also has a high specific gravity, much albumen and salts, and very little sugar. The albumen diminishes as lactation progresses, from 3.498 per cent. in the first month to 1.405 per cent. in the eleventh. The salts undergo similar diminution. On the other hand, the sugar increases from 4.506 per cent. in the first to 6.179 per cent. in the twelfth month. The fat, the specific gravity, and the solid constituents show no remarkable change in the course of lactation; though the fat is, in the average of cases, somewhat less abundant in the first months than it is in the subsequent ones. Therefore, in the milk of the early months, there is a preponderance of albumen and salts, less of sugar; in the milk of the later months, on the other hand, there is a diminution of albumen and salts, and a preponderance of sugar. While the quantity of fat remains nearly constant for all periods of lactation, it varies for each occasion of nursing, according as it is the first, second, or third portion which is removed from the glands—the first portion containing from two to seven per cent. less of fat than the third portion. This fact is of considerable practical importance in cases in which a wet-nurse is required. As to the quantity of milk which is secreted, it seemed to increase to a certain period of lactation, then to remain constant for a time, and then to decrease, the estimate being that the decrease begins usually in the twenty-eighth week. In women between thirty and forty years of age, the milk is rich in albumen, sugar, and salts, but poorer in fat than that of women between twenty and thirty. There is also more fat in the milk of multiparæ than that of primiparæ. The richer the mother's food in albuminous substances, the richer her milk will be in albumen and fat, and the poorer in sugar and salts. Should menstruation occur during lactation, the sugar in the milk will be greatly increased, and the infant will be likely to suffer with frequent watery stools.—*Archives of Pediatrics for July.*

The Formation of Urea.—MM. Gréhant and Quinquand have been conducting some further investigations as to the places of formation of urea in the economy. They have estimated several times the amount of urea in the blood going to, and in that coming from the spleen and liver. The blood from the

hepatic, portal and splenic veins always contained more urea than arterial blood taken from the carotid arteries. From this they conclude that the abdominal viscera form urea. It is also asserted that the proportion of urea is practically the same in arterial and venous blood from the limbs and head. Lymph and chyle collected from the thoracic duct, after section of the medulla oblongata and the employment of artificial respiration, have always been found to be richer in urea than venous or arterial blood. —*The Lancet.*

Prof. Grasset on Treatment of Hysteria.—*Prof. J. Grasset, M. D.*, of the Univ. of Montpellier, in an article in *Brain*, April and July, 1884, entitled "*The Relations of Hysteria with the Scrofulous and the Tubercular Diathesis*," after analyzing 44 cases of hysteria, advances the theory that it is a manifestation of the tubercular diathesis. In 25 of his cases it was the only manifestation of the diathesis; in the rest the nervous and pulmonary symptoms appeared simultaneously or in succession. Just as chorea is often a rheumatic disease and angina pectoris a gouty, so hysteria may be tubercular. The relations between the phthisis and hysteria of the tubercular diathesis are like those between the cerebral and abdominal symptoms of typhoid fever, or between the visceral and articular manifestations of gout. His studies lead him to adopt the following principles of treatment, which he thinks has been addressed hitherto too exclusively to the neurotic element of hysteria, and not atall to the diathesic element:

Three categories of indications will have to be fulfilled in the full treatment of hysteria. First, the actual symptoms are to be met by appropriate measures, such as ovarian compression, ether inhalations, æsthesiogenous applications, etc. Second, the state of the nervous system, which is to be modified at any cost: hydrotherapy is often useful; change of surroundings; electricity, galvanic, but more especially static He has little faith in the bromides. Third, the diathesis forms the fundamental ground for a chronic exhibition of arsenic, sulphur, alkalis, chloride of gold, mineral waters, etc.

Unless these three orders of indications be daily taken into account, our measures, based upon a superficial diagnosis, must necessarily remain sterile.

Sir Henry Thompson, in a lecture on "*The Surgery of the Urinary Organs*" (*Lancet*, July 19th), divides the history of stone-operating during the present century into three eras: I. The era of lithotomy, pure and simple, when the operation was applied to cases of every description. II. The era in which lithotrity, having appeared, was adopted for a certain proportion of patients for whom the crushing was believed to be better than the cutting operation, which latter, on the other hand, was preferred on certain grounds for other patients; the relative numerical proportions submitted to the two procedures differing in the practice of different operators, but approximating more or less to equal moieties of patients to each method. III. The era which appears now to be established, in which lithotrity may be regarded as applicable to all adult cases as the rule, the exceptions of any kind, besides the cases of children, being extremely few.

Exercise for Girls.—Several daily papers have recently discussed a letter from Mr. H. P. Dunn, published in the *Standard*, on the use and abuse of gymnastics for young women. The letter, as might be expected, turns attention to the evils of excessive gymnastic training. As violent exercise produces bad results on weak youths, and as girls are, on the average, weaker than young men, it is natural to suppose that injuries to health after gymnastic training may be commoner amongst females than amongst males; and experience shows this to be the case. No doubt the best kind of physical training in youth is voluntary exercise, either in playing at the outdoor sports popular with English boys, or in rambles over fields and hedges. For certain social reasons, not entirely unconnected with physical matters, neither such sports, nor such congenial walking exercise, can be carried out in girls' as thoroughly as in boys' schools, and methodical gymnastics stand to cricket in the same relation as a walk with other fellow-pupils in line and in class does to a pleasant saunter with one or two school-fellows along a country lane. The aim of the authorities at a girls' school should be to allow as much congenial exercise as possible to every pupil, and to encourage physical activity as strongly as cleanliness and deportment; gymnastics are quite secondary

to such conditions. Mr. Dunn is right in recommending frequent drilling; but in preferring dumb-bell practice to bar and ladder gymnastics, it must be remembered that severe palpitations are not unfrequently set up by the use of dumb-bells, even when that form of exercise is not disagreeable, and when the subject is apparently free from visceral disease.—*Br. Med. Journal.*

Medical Items.

Butler, the author of Hudibras, must have had some forecast of the germ theory for he wrote:

"Big fleas have little fleas to bite 'em,
And these fleas lesser fleas, ad infinitum."=

The next International Medical Congress will be held in Washington, the invitation of the American Medical Association conveyed through Dr. Billings at Copenhagen having been accepted.=The British Medical Association now numbers nearly 12,000 members, an increase of 1040 during the past year.=A motion that the traveling expenses of members of the Council, the governing body of the Association, should be paid out of the funds of the Association, was rejected at the late meeting of the British Medical Association.=A female negro child born with a tail, is reported from Louisville. "Slightly to the left of the median line, and about an inch above the lower end of the spine was a fleshy pedunculated protuberance, about 2½ inches long. It closely resembled a pig's tail in shape, but showed no sign of bone or cartilage." Max Bartels describes 21 cases of persons born with tails mostly like the above.=A new edition (7th) of "West on Children" is out in London, which the *Medical Times and Gazette* says is fully up to the times.=The English Medical Bill, from which so much was expected by the friends of reform in that country, has been withdrawn by the Government. It had been so altered that its friends had become indifferent to its passage.=Dr. Roussell, of Paris, has constructed a new apparatus by which large quantities of albuminous fluids may be introduced hypodermically in the algid stage of cholera.—*Medical Times and Gazette.*=Dr. Octerlony has withdrawn from the editorial management of the *American Practitioner*, Dr. D. W. Yandell remaining now sole editor.=Dr. B. W. Dudley, of Lexington, Kentucky, a prominent physician of that section, and of a family illustrious in the annals of Kentucky surgery, died July 3, æt. 46.=The annual revenue of the British Medical Association exceeds $100,000; one-half is derived from annual subscriptions of members, and nearly as much is obtained from advertisements and sales of the journal, the remainder being from interest on investments. The excess of income over expenditures in 1883 was $12,020. The Association now has over $85,000 invested in Government and railway securities.—*British Medical Journal.*=Drs. Klein and Heneage Gibbs, the English Cholera Commission, sailed for India on the 6th instant.=Dr. Moreau, the distinguished French alienist, is dead, in his 81st year.

Changes in the Stations and Duties of Officers Serving in the Medical Department, U. S. Army, from August 12, 1884, to August 18, 1884:

Bartholf, J. H., Captain and Assistant Surgeon, relieved from duty at Vancouver Barracks, Washington Territory, and ordered to take station at Portland, Oregon.

Heizmann, C. L., Captain and Assistant Surgeon, ordered to proceed to Fort Ontario, N. Y., and report for duty.

Kane, John J., Captain and Assistant Surgeon, granted leave of absence for one month.

Birmingham, H. P., First Lieutenant and Assistant Surgeon, granted one month's leave of absence.

Woodward, J. J., Major and Surgeon, died August 17, 1884.

List of Official Changes in the Medical Corps of the Navy for the week ending August 16, 1884:

Medical Inspector E. Bogert to be Fleet Surgeon Asiatic Squadron.

Surgeon H. J. Babin detached from Minnesota, ordered to Marine Rendezvous, N. Y.

P. A. Surgeon R. Whiting detached from Marine Rendezvous, N. Y., ordered to Naval Academy as Member of Examining Board.

Surgeon G. H. Cooke ordered to Naval Academy as Member of Examining Board.

P. A. Surgeon P. M. Rixey detached from special duty as Washington, ordered to U. S. S. "Lancaster."

Surgeon T. Woolverton ordered to U. S. S. "Minnesota."

Original Papers.

PROOF THAT HUMAN MILK CONTAINS ONLY ABOUT ONE PER CENT. OF CASEIN; WITH REMARKS UPON INFANT FEEDING.*

BY ARTHUR V. MEIGS, M. D.,

Physician to the Pennsylvania Hospital and Children's Hospital.

You must give me your indulgence for bringing before you a subject necessarily somewhat dry in its details, but its great importance must be my justification. Nearly two years ago, I had the pleasure of reading here a paper upon "Milk Analysis," when I described the method I had worked out, and briefly detailed my results. The main conclusion was that human milk never contains more than about 1 per cent of casein, and this observation I then claimed to be a new one, and very important, as showing how we should feed infants so unfortunate as to be deprived of their natural sustenance. A year ago or more, I delivered a lecture to the class at the Pennsylvania Hospital, which was subsequently published in the *Medical News* of November 4, 1882, in which I described a plan of feeding deduced from the results of numerous experiments and analyses. This evening, I wish, first, to offer proof that the results arrived at by the method of analysis are correct, and, second, to make some suggestions about the proper method of infant feeding.

Although many chemists have made analyses of human milk, and a great variety of divergent results have been attained by different methods, there has as yet been no proof offered of the correctness of any of them. This constitutes an important missing link in any attempt to place the question of the composition of milk upon a settled basis; and if a method of analysis is ever devised that will give results which shall be universally accepted, and stand the test of time, the accuracy and correctness of the method must be susceptible of proof—simple, scientific and incontrovertible proof. Some proof of the correctness of the analyses described here two years ago will now be attempted.

*Read before the Philadelphia County Medical Society.

No one disputes that in ether, chemists have a perfect solvent for fat, which, when properly applied in milk analysis, extracts it all. The fat when separated can be seen, and the eye tells positively that it is fat.

With regard to the water, it is equally certain that by the evaporation process its amount can be accurately estimated. This statement is made with the knowledge that there may be with the water some slight traces of other fluids—alcohol, for instance, and perhaps other volatile liquids; but these must be in such minute quantity that they need not be taken into consideration, and for the present the liquid portion of milk may be spoken of as the water. It is equally certain that in incineration, properly performed, there exists an easy and correct method of determining the amount of inorganic matter. In the future, of course, there may be perfected some way of estimating the salts in milk, by extracting from the liquid milk, or from the solid residue left after evaporation, and this may show them to exist in larger quantity than the present method of incineration leads to believe; but the possible error introduced in this way must be very small, and does not invalidate the general facts stated. That the existing estimates of the water, fat and inorganic matter are correct, is further proved by the fact that there is no difference of opinion in regard to their amounts. Examination of the analyses of different chemists shows an almost exact uniformity of conclusion with regard to the relative quantities of the above-mentioned substances.

When the estimates of the casein and sugar, however, are considered, the widest divergence of view is discovered in the conclusions as to the amounts existing in human milk. In regard to cows' milk, chemists all arrive at nearly uniform conclusions. The casein in human milk is estimated by Dolan and Wood, in one of their analyses, at 7·005 per cent., Vernois and Becquerel give it as 3·924 per cent., and Henri and Chevallier as 1·52 per cent., while my own experiments lead me to conclude that there is about 1 per cent. Now the fact is a striking one, that if in any of these analyses the sugar and casein amounts be added together, the sums are found to be in each instance nearly the same. The subjoined table shows this to be the case.

	Vernois and Becquerel.	Simon.	Henri and Chevallier.	Dolan and Wood.	Haidlen.	L'Héritier.	Doyère.
Casein..	3.924	3.43	1.52	7.005	3.1	1.30	.85
Sugar...	4.364	4.82	6.50	1.921	4.3	7.80	7.31
Total..	8.288	8.25	8.02	8.926	7.4	9.10	8.16

	Clemm.	Tidy.	Meigs.	Payen.	Quevenne.	Regnault.
Casein..	3.53	3.533	1.046	.215	1 05	3.9
Sugar...	4.118	4.624	7.407	8.805	7.31	4.9
Total..	7.651	8.157	8.453	9.020	8.36	8.8

The estimates of Haidlen, L'Héritier, Doyère and Clemm are taken from a table in the Physiologische Chemie of Gorup-Besanez; those of Vernois and Becquerel, Payen and Regnault are taken from one in the Traité de Chimie Pathologique par Becquerel et Rodier; but the others are from the original sources. A complete estimate of all the constituents is not attempted in the analysis of Quevenne; and under the head which is called casein in the table is included albumen (matière albumineuse précipitée par l'alcool); under that of sugar are included also extractive matters (lactine et matières extractives).

The table also shows that, in each instance, where the casein amount is large, the sugar is small, and *vice versa*—that where the casein amount is small, that of sugar is large.

It has been already said that as regards the analysis of human milk, all observers are agreed as to the proportions of the water, fat, and ash; it is now further evident, from the table, that all agree as to the quantities of casein and sugar taken collectively, and that only when the separation of the two is attempted does there exist any difference of opinion. The separation of the casein from the sugar, therefore, is the difficult part of milk analysis, for in regard to this alone is there any difference of opinion. In this portion of milk analysis then is reached the stumbling block, and it alone requires any explanation, for the rest is universally conceded, and cannot, therefore, but be considered as already placed upon a scientifically exact basis.

There are but two possible explanations of the different results arrived at by various investigators; one, that human milk is as variable a substance in regard to the amounts of casein and sugar contained, as the different analyses would lead to believe; and the other, that the methods of the majority of chemists have been faulty and their conclusions incorrect. That the second of these two explanations is the correct one, does not admit of doubt. Wanklyn says that cows' milk is a substance exhibiting great uniformity of composition, and what he says of cows' milk is also probably true of human milk. There is no reason to expect that it would vary so much in regard to the proportions of casein and sugar, when cows' milk exhibits such uniformity of composition in these respects. It may, by analogy, be fairly argued that human milk is very unlikely to be so variable as published analyses would seem to show. The proof of this, however, lies in showing, by examination of a large number of specimens, that human milk always contains a large amount of sugar (say 7 per cent.), and therefore, by exclusion it cannot contain the great amount of casein it is usually credited with, for all observers agree as to the sum of the amounts of the two substances.

The existence of this large amount of sugar in human milk I have endeavored to demonstrate by experimenting as to how much could be obtained in the crystalline form from any fixed quantity, and then, by applying the same process to cow's milk, to find out whether an equal or, as should be the case if my already published original analyses are correct, only a less quantity of sugar will take the crystalline form.

An experiment was made as follows: 10 c. c. of human milk, which had already, by the process described in my previous paper, been found to contain 7.224 per cent. of sugar, was, as usual, agitated with ether and alcohol, and the fat removed. After the removal of the fat the remaining portion was carefully washed into a dish, and in the water-bath, at a temperature of 70° to 80 C., evaporated until only about 10 c. c. of fluid remained; upon this was poured a mixture of 25 c. c. of water with 25 c. c. of alcohol, and the whole allowed to stand over night. By morning a precipitate had formed and settled to the bottom of the vessel; this was thrown upon a filter and washed with a mixture of equal parts of boiling alcohol and water. The filtrate was

again reduced in the water-bath, at a temperature of 70° to 80° C., to about 10 c. c. and then 75 c. c. of absolute alcohol added. This caused again the formation of a slight precipitate, which was allowed to thoroughly settle to the bottom, when the perfectly clear fluid above was poured off into a dish, care being taken that none of the precipitate passed over with the clear fluid. This liquid was allowed to evaporate, without heat, in an open dish of known weight, and there remained, finally, only crystalline milk-sugar, with a very minute amount of the inorganic material. The 10 c. c. of milk thus treated yielded 659 milligrammes of sugar dry at 100° C. This milk had been previously ascertained to contain 738 milligrammes of sugar to each 10 c. c., which made its percentage of sugar 7.224, as already stated. These figures are sufficiently nearly parallel to prove the point, for by the method of crystallization described, it was not expected that all the sugar present would be obtained in the crystalline form, some of it being necessarily precipitated with the casein in the course of the manipulations with alcohol; but only to obtain it pure, and in sufficient quantity, to prove that the sugar existed in the milk in the large quantity shown by the analysis, and therefore necessarily by exclusion, the existence of only the small amount of casein. The demonstration thus obtained seems incontrovertible, for when the existence of the large amount of sugar is shown, it follows as a necessary corollary that there can be only the small amount of casein, and therefore, the existence of the small amount of casein in human milk is proved.

As a means of further proving that the sugar obtained by crystallization, as described, was entirely free from any traces of casein, it was tested for me by Mr. J. K. Hecker, the apothecary of the Pennsylvania Hospital, by the Nessler test described by Wanklyn and Chapman (Water Analysis, by J. Alfred Wanklyn and Ernest Theophron Chapman, London, 1876, p. 25). This test decomposes the casein and forms ammonia from the nitrogen. When the crystalline sugar was subjected to its action it showed it to be practically free from casein.

Cows' milk, when subjected to the same process of precipitation of the casein by alcohol, after the removal of the fat, yielded only about 4 or 5 per cent. of crystalline sugar. The manipulations were not carried out with the care that was taken when human milk was examined, for there is no dispute as to the amount of sugar in cows' milk; the experiment was, therefore, made merely to afford confirmatory evidence of what was shown by that upon the human milk. For if only a little more than 4 per cent. of sugar existed in human milk, as is claimed by Vernois and Becquerel, and others, and this being the quantity universally conceded to exist in cows' milk, then when both were subjected to the action of the same reagents, the same amount only of crystalline sugar should be yielded. This, however, was not the case.

One of the strongest proofs of the correctness of the estimates of fat in milk is afforded by the fact that after it has been separated it can be seen, and the eye tells that it is fat. When sugar is crystallized, and can be seen and felt, and examined with the microscope or a magnifying-glass, and the characteristically shaped crystals of milk-sugar are seen, the fact that it is sugar, and nothing else, becomes self-evident.

To test still further the accuracy of the method described in my former paper upon milk analysis, I carefully analyzed a specimen of human milk and found it contained the different proximate constituents in about the usual quantities. Then I separated from a further portion of the milk, taken at the same time and under exactly parallel circumstances, fresh portions of the casein and sugar, which I gave to Mr. Hecker, to test their purity; the sugar to be subjected to the Nessler test, to discover if it contained any casein, and the casein to be subjected to the action of Fehling's test, to find whether or not it was free from all traces of sugar. The casein entirely failed to produce any effect upon the copper solution, thus showing that it was free from sugar, while if a small portion of the sugar was added to the solution, the characteristic reduction of the copper at once took place. When the sugar was subjected to the Nessler test, .05 grammes being introduced into the retort when the decomposing materials were ready; it almost entirely failed to react, showing no more change than would be accounted for by the distilled water which had been used to prepare the sugar. This distilled water must have contained traces of organic matter, for when it was subjected to the test it showed slight

traces of ammonia. The test is so delicate, that it is only by the greatest care and nicety in preparing the materials that they can be had perfectly free from all nitrogenized materials. The conclusion was that the sugars—both that prepared by the ordinary processes advised for analytic purposes, and that obtainedby crystallization—were, practically speaking, free from casein.

If, then, it has been shown that human milk contains approximately 87.1 per cent. of water, 4.2 per cent. of fat, 7.4 per cent. of sugar and 0.1 per cent. of inorganic matter, the proof that it contains, not 3 or 4 per cent. of casein, as is commonly taught, but only about 1 per cent., is complete.

It may seem bold to make statements directly contradictory of the correctness of many of the usually accepted standards, but it is done with the full knowledge that it is liable to contradiction. There is an article on Infant Foods, by Prof. Albert R. Leeds, in the transactions of the College of Physicians, third series, vol. vi, Philadelphia, 1883, in which he gives results quite different from my own; but as he gives no account of the methods he pursued, any criticism of his results is at the present time impossible.

In the endeavor to find a food which shall be the best for infants who have to be hand-fed, there are two considerations, either of which might be selected as the basis from which to start. In the first place, the desired goal might be attained by making trial of all sorts of foods, and these being put to the test of experience, the good would be retained and the bad gradually weeded out, until at last perhaps the most suitable would be found, and slowly introduced. On the other hand, the desired end might be attained by trying to produce a food which should be, as nearly as possible, like what nature has provided for the infant. Many trials have been made in the past by both these methods, but to the second one justice has never been done; for, if my conclusions are correct, a proper understanding of the composition of human milk, from which to start, has been wanting.

A clear understanding being now had of its proximate constituents, and the proportions in which they exist, it is possible more intelligently to set about finding how the same elements may be had, and mixed together to make an artificial food like human milk. Cows' milk is almost universally the basis of the foods used, in this country at least.

The artificial food which I shall presently recommend is the outcome of a study of the subject from both of the standpoints suggested, and its advantages are demonstrable. Upon theoretical grounds, it is what a food for infants should be; for analysis of human milk and cows' milk has shown what is their composition, and in the artificial food the elements have been introduced in the same proportions as they exist in human milk. Experience has for many years past been tending in the direction of proving such a food to be what is needed; for, while almost innumerable manufactured infant foods of every variety have been introduced, and have often for a time been thought all that could be desired, they have all, one after another, fallen into disuse and been forgotten; but the use of cows's milk continues to hold its own, and in civilized countries is employed ten times more than all the manufactured foods together. The question, however, remains of how to use it, and the various methods suggested have been almost as numerous as the physicians who have advised them. For a long time the great majority of writers upon infant diseases and diet have recommended that cows' milk should be diluted before giving it to young infants; and this, they all agree, is because it contains too much casein, which causes a curd that only infants of the strongest digestion can with safety assimilate.

[TO BE CONTINUED.]

Hospital Reports.

UNIVERSITY HOSPITAL.

SERVICE OF DR. RANDOLPH WINSLOW.

CASE I. *Pyæmic Disorganization of Knee-Joint—Amputation—Recovery.*—Jas. H. B., aged about 40, was admitted on July 2nd. Eight weeks previously he ran a nail into his foot, causing cellulitis and abscess, which broke, discharged and healed. About a week after the receipt of the injury, he had a chill followed by fever, and in a short time pain and swelling were experienced in the knee joint. The fever continued, the whole right limb became enormously swollen, and his life was placed in great danger. Upon admission to hospital, he was found

to be in a deplorable condition. The whole leg from near the hip to the ankle was enormously swollen and fluctuating, the knee joint much distended, the extremity absolutely helpless, everted and very painful, the patient thin, and fast losing strength. Two free incisions were made into the pus cavities on both sides of the thigh, the knee joint being opened thoroughly. Large quantities of foul pus escaped, and the swelling subsided. The finger detected erosion of the cartilages and necrosis of the bones forming the joint, and the pus had dissected the muscles up from the upper third of the thigh to the os calcis. After thoroughly washing out knee joint with bichloride of mercury (1–1000) solution, the temperature began to fall; on the 3rd falling to 101°, and on the 4th 100°. Amputation was performed on July 4th, in the middle of the thigh, the flaps being made by transfixion. Previous to operation the seat of operation was well scrubbed with a nail brush and sublimate solution, and the wound was frequently and thoroughly irrigated with the same. The vessels were secured with sublimated ligatures, and the ends cut short. The flaps were united with the same silk sutures, and free drainage provided for by the introduction of a large india-rubber tube. Iodoform was freely dusted upon the line of the incision, and sublimated gauze and oakum completed the dressing; over the whole varnished paper being used to prevent the discharges from soaking through. At 6 P. M., temp. 98⅖°, pulse 130, surface rather cool. July 5, A. M., temp. 98⅘° ; P. M., temp. 100.° Has no pain, complains that he does not get enough strong food, and was found enjoying a cigar. The highest temp. reached at any time was 100⅗. July 10th, the first dressing was changed; stump largely healed. In less than three weeks he was allowed to sit up, and was discharged well about Aug. 6th, having gained much in flesh and strength.

The above case was one of the most unpromising which could have been presented to a surgeon, and shows the conservative side of amputation to great advantage, as under any other line of treatment he must have died in a short time. Much of the success in this case must be credited to the rigid antiseptic plan of treatment which was adopted.

Case II. *Crush of a Leg, by a Falling Bank—Primary Amputation—Sloughing of Stump, and Infiltration with Pus—Secondary Amputation—Death from Septicæmia.*—C. C., Italian laborer, was crushed by a falling bank upon the Catonsville short line railroad, and had an amputation performed in the lower third of the left leg, previous to admission to hospital. Admitted June 21st. The wound was not disturbed. 23rd, temp. 103°, and the stump is sloughy. 24th, cut stitches and thoroughly irrigated with bichloride solution. But little improvement followed and the stump became filled with slough and the muscular interspaces infiltrated, and saturated with pus. Patient has septicæmia. June 30th, reamputated about three inches higher up, after having thoroughly cleansed the part with bichloride lotion. The flaps were abundantly irrigated, the fluid being forced between the muscles. A large drainage tube was introduced, vessels being ligated with antiseptic silk. The flaps were brought together carefully with silk sutures and a wire relaxation suture. Iodoform externally and carbolized gauze were used as dressings. At first the patient improved, pulse and temperature being reduced; but notwithstanding thorough irrigation daily, the stump became much swollen, hot and painful, whilst a free discharge of stinking pus took place. Evaporating lotions, saturnine and later ice water, were kept upon the part, counter openings were made, and extreme care taken to cleanse and disinfect the wound. By the middle of July the fever had abated and the flaps were nearly united, but a free discharge continued. July 20th, A. M., temperature 98⅖°; had a chill about 4 P. M., and temperature rose to 103⅗°. After this time the chart was very irregular, sometimes high, occasionally normal, but he gradually became weaker and died on August 2, forty-three days after the receipt of injury. Cause of death, exhaustion following septicæmia.

This case was "fixed up" before admission to hospital, which is much to be regretted, as doubtless the operator was unable upon the spur of the moment to procure the necessary antiseptic materials for properly dressing the stump; and the patient suffered from septicæmia almost from the start. Secondary amputations performed for injury are much more fatal than are the primary. Of course the usual stimulating and nourishing treatment was also fully followed in the above case.

Case III. *Necrosis of Femur—Sequestrotomy.*—D. H., aged 16 years; extensive thickening of femur as far as middle of thigh; sinuses on both sides of limb leading to necrosed bone. No history of injury. The disease does not involve the lower epiphysis but stops abruptly at the epiphyseal line. The knee-joint is sympathetically flexed from contraction of the posterior tendons. Incisions were made down to the femur, and one large sequestrum and several smaller ones were removed. The disease being chiefly at the posterior part of the bone and deep in the popliteal space, it was difficult to reach the seat of the disease, but this was accomplished more by touch than sight. Wound irrigated with 2½ p. c. carbolized solution and packed with iodoform gauze. After course almost afebrile. Allowed to go home in less than two weeks, not entirely cured but improving rapidly.

Case IV. *Chronic Periostitis and Caries of Femur near Great Trochanter—Bone Scraping.*—J. F., aged 38, has had pain in thigh for several years, and has had abscessess which have been opened. He was struck with a rake some years ago and dates his bone trouble from that. Has several discharging sinuses at upper and posterior surface of thigh. Has so much pain that he has been unable to work for twenty-eight weeks. Otherwise he is in good health. The sinuses were slit up to the bone and the periosteum found to be very thick and the bone very vascular, and much softened in the upper third. These carious localities were thoroughly scraped out with the sharp spoon until hard bone tissue was reached, the wound thoroughly irrigated with sublimate solution and packed with iodoform gauze. His temperature scarcely passed the normal line, being 98⅖°, pulse 80 the second day following the operation. The first dressing remained on five days. At time of writing the man is nearly well, and no longer has pain or discomfort.

Case V. *Caries of Femur involving the Inferior Epiphysis—Bone Scraping—Cure.*—Jack, 5 or 6 years of age, has had a bent and partially dislocated knee for months and numerous sinuses upon anterior and posterior aspect of thigh, leading to carious bone at the posterior epiphyseal junction of the femur. The boy had improved much under general treatment, but the disease of the bone did not seem to be arrested. July 9th an incision was made at outer border of popliteal space, and the degenerated bone thoroughly scraped out. Bichloride irrigation and packing the wound with iodoform gauze was the after dressing. In this case the knee-joint was entered, as the disease was limited to the lower epiphysis. July 10th, temperature 100°; 11th, temperature 99°, pulse 100. July 18th, wound redressed for the first time, almost no suppuration having taken place. Aug. 17.—He is well and ordered to be discharged.

Society Reports.

BALTIMORE ACADEMY OF MEDICINE.

STATED MEETING, HELD MAR. 4TH, 1884.

(*Specially reported for Md. Med. Journal.*)

The Academy met at the usual hour, Dr. S. C. Chew, Chairman, pro tem.

Umbilical Hemorrhage Associated with Icterus Neonatorum.—Management of the Umbilical Cord.—The *Chairman* reported the following: Eleven days ago he attended a case of confinement. The case was a tedious one. On the second day after birth the child had intense jaundice. This was succeeded on the sixth day by a copious umbilical hemorrhage following the dropping off of the cord. The child was exceedingly weakened, and a considerable amount of brandy was used to restore it. There has been no return of the hemorrhage since. According to J. Lewis Smith, five out of six cases of umbilical hemorrhage perish, it being especially fatal when jaundice has preceded. If this form of jaundice be due to the altered circulation in the liver consequent upon ligation of the cord, as has been suggested, it should be met with more frequently. In a case of acute atrophy of the liver, which the Chairman had reported some months ago, there was hematuria.

Dr. McKew had seen many cases of icterus in infants, but only one case of umbilical hemorrhage and that from criminal intent. Dr. McKew referred to the case of a new-born child which had convulsions. It became cyanotic, and after that refused to nurse, having to be fed with the spoon. It sank from exhaustion and died in a few

days. The cause of death was quite an enigma to him.

In answer to a question of Dr. Ashby as to what effect the non-ligation of the cord has upon the child, he said that he always cut the cord and allowed it to bleed some in order to assist the establishment of respiration. From the amount thus lost he supposed there would be danger from non-ligation of the cord.

Dr. Ashby said late ligation of the cord has been highly recommended, the benefit being shown in the improved condition of the child, which may gain two to three ounces in weight.

Dr. McKew suggested three objections to this proposition: First, the friends wont brook delay, thinking something is wrong; second, the child will be in the way of attentions to the mother; third, there may be possible danger.

Dr. Ashby suggested that both ends of the cord should be tied in order to prevent soiling the bed and loss of blood to the mother. Observations upon the lower animals show that the cow and hog eat the cord. In the case of a mare, which came under his observation, the animal raised up, kicked and thus broke the cord.

Dr. Taneyhill observed a cow chew the cord in two; the placenta and membranes were not expelled until the third day. Dr. Taneyhill also referred to a case of marked icterus occurring two days after birth. Bicarb. sodium, gr. i, every three hours, was given for three days, and when the bowels were opened the icterus began to clear up.

The *Chairman* said that in his case the treatment was ½ gr. doses of calomel, used not for any specific effect but because of slight constipation.

Alarming Hematemesis Connected with Gastric Ulcer.—The *Chairman* reported the case of a young lady, æt. 23 or 24, in whom a fatal result had been threatened from repeated and profuse attacks of hematemesis, the patient being blanched, pulseless and cold. She had been treated for neuralgia of the stomach, the symptoms being pain in the epigastrium running through to the back aggravated by taking food. The patient was too young for cancer, and the diagnosis of gastric ulcer had therefore been made.

Dr. McKew also reported a similar case in a girl, æt. 15 or 16, subject to violent pain after taking food, who vomited basin after basin of blood. Her condition became extremely critical, the extremities being cold and pulse imperceptible. She recovered. He had also had a case of the same sort in an elderly woman approaching the climacteric.

He could not see how astringents could do any good in these cases, where a vessel of considerable size is ruptured.

The *Chairman* agreed perfectly with the last speaker. In his case the stomach filled again and again with blood.

Dr. Uhler related the case of a woman suffering with hemorrhage from the stomach, at intervals, for one year. Astringents had no effect. He applied cold over the stomach by means of a tincup filled with ice, a single layer of flannel being interposed; dry cold being borne for a longer time than wet cold. The hemorrhage ceased and there was no return. In a similar case he would be tempted to pass an India rubber bag into the stomach filling it with liquid, and thus make pressure both without and within.

Dr. Van Bibber spoke of a novel method employed by another physician of this city in the case of a well-known young gentleman, brought almost to the verge of death by profuse gastric hemorrhage. Having been very stout previously he was greatly reduced in flesh. His stomach being empty he was made to swallow a solution of nitrate of silver (thinks it was 20 grs. to the ounce) and was then rolled on a mattress placed upon the floor. This was followed by recovery.

CLINICAL SOCIETY OF MARYLAND.

STATED MEETING HELD APRIL 18TH, 1884.

(*Specially reported for Md. Med. Journal.*)

The Society met at 8.30 P. M., the President, Dr. J. Edwin Michael, in the Chair. Drs. W. T. Councilman and E. Roy Phillips were elected members and Dr. Urquhart proposed for membership.

Removal of Entire Ulna for Strumous Disease.—*Dr. Chambers* reported a case in which he had removed the left ulna in July for strumous disease of the bone. The wrist and elbow joints remained movable.

A question arose as to whether the case might not have been due to syphilitic in-

fection. Dr. Chambers said he had excluded this, and for several reasons. Both father and mother had had tuberculosis. There had been no skin or mucous lesions ever observed. As a rule skin and mucous lesions precede bone lesions in syphilis; the disease rarely attacks bone alone. He had moreover tried specific treatment, and the patient had not done as well as on cod liver oil. For these reasons he had felt justified in excluding syphilis. The patient had had enlarged and suppurating glands.

Dr. I. E. Atkinson had noticed bone lesions preceding other manifestations, and occurring alone in a number of cases of congenital syphilis. He had also met with a number of cases of inherited syphilis, where the family history showed no evidence of the disease—as in a girl of 16 previously reported by him. The pegged appearance of the teeth of the child exhibited by Dr. Chambers suggests strongly the existence of congenital syphilis.

Dr. Chambers said this appearance is not always attributable to syphilis, but may also be due to debilitating causes. The teeth are not truly notched here.

Dr. Atkinson replied that the appearance was possible from non-specific causes but not probable. The crenated teeth are common, but the notched teeth are strongly diagnostic of congenital syphilis.

Dr. Theobald said in interstitial syphilitic keratitis he had seen periosteal nodes on the tibia and arm without mucous or skin lesions—no evidence of the syphilitic trouble except the periostitis. He did not recollect to have seen well-marked notched teeth without other pretty strong evidences of syphilis. The case now before the Society does not present the pegged or notched appearance described by Hutchinson; the teeth look as though some acid had eaten off the enamel.

Dr. Atkinson called attention to the fact that the only teeth affected are the two upper central incisors.

Dr. Rohe would be inclined to regard the case as one of hereditary syphilis and nothing else; it does not matter whether one or more teeth are affected.

Dr. Branham disagreed with the opinion last expressed. If only one tooth were affected it might originate from a local cause; whereas if more the probabilities would be in favor of a general cause.

Dr. Robt. W. Johnson said we must take all the symptoms into consideration. In this case the ensemble of frontal trouble, necrosis of ulna, and the typical teeth points inevitably to specific trouble. The effects of cod liver oil, upon which Dr. C. had laid such stress, were not remarkable since that agent often aids in effecting a cure in debilitated syphilitic subjects.

Dr. Winslow had attended this boy at the House of Refuge and had scraped the ulna for caries, which had been followed by improvement.

Specimen of Rheumatic Endocarditis with Vegetations and Cardiac Hypertrophy.—*Dr. I. E. Atkinson* reported the case of a negro, 26 years of age, who was brought into the University Hospital in a very bad way. He said that his trouble began in an attack of rheumatism last Christmas. He was evidently very ill and in constant suffering. On examining the heart a double aortic murmur was detected. There was probably a mitral regurgitant also, but the loud breathing and a pericardial effusion obscured the heart sounds. He died, and at the post-mortem the heart was found to be very much enlarged, with soft, pedunculated vegetations on both aortic and mitral valves, and it was full of red blood. There was a moderate effusion into the left pleural cavity, whilst on the right side there were old pleural adhesions. There were also pericardial adhesions but not firm. The kidneys were congested and presented the appearance of having undergone fatty degeneration.

Specimen of Multilocular Ovarian Cyst.—*Dr. Winslow* exhibited a compound multilocular cyst and related the history of an unsuccessful case of ovariotomy (see report in full in Md. Med. Journ., July 26).

Specimen of Fibro-Cystic Tumor.—*Dr. Scarff* exhibited a specimen of fibro-cystic tumor with the following history: It was removed from a woman otherwise in good health. It floated in a large amount of ascitic fluid and was attached to the fundus uteri by a pedicle ½ inch long, very broad and thick. The uterine canal was 3½ inches long. The diagnosis was doubtful, lying between a dermoid cyst and a fibro-cyst. The tumor was removed four days ago under ether, the ecraseur and piano wire being used, and pedicle being ligated and then cut. There was some nausea and vomiting about an hour after operation. Antiseptics were

employed, the spray being kept going for six hours before the operation but not during it. The incision was closed, dusted with iodoform and covered with borated lint and mackintosh. The operation occupied one hour. The patient is doing well.

Fibroid Degeneration of Mamma.—*Dr. Browne* exhibited a specimen of fibroid tumor or rather fibroid degeneration of the mamma. The whole gland was involved, and there was severe neuralgic pain, in consequence of which it was removed entire. The patient was aged 32, and according to her account the symptoms took their origin in a blow on the breast received five or six years ago. There was no enlargement of the axillary glands. No microscopic examination had been made.

Dr. Winslow remarked that the presence of pain and the diffusion of the fibrous tissue contraindicated the diagnosis of fibroid tumor, which is always localized.

Specimen of Fibroid Polypus of Uterus.—*Dr. Erich* reported the following case: The patient was 39 years old; had been married eighteen years and was the mother of eight children, all born within ten years of her married life, the last seven and a half years ago. For the last three and a half years she has had a very profuse menorrhagia, with a copious offensive watery discharge towards the end of each menstrual period. The cervix having been dilated with a tent, a roundish body could be felt by the finger within the uterus, supposed to be a polypus. Further dilatation was secured by using several tents at once. The supposed polypus could now no longer be felt, nor was there any sign of it on introducing a Goodell's bivalve speculum into the uterus itself.

The uterine canal was five inches in depth. The enlargement was attributed to subinvolution. The whole interior of the organ was then scraped with a blunt curette, and Monsel's solution afterwards applied to it. Squibb's ergotine, five grains thrice a day, was given. There was quite profuse hemorrhage after this, and the temperature ran up to 103°. Day before yesterday, one week after the operation, the patient complained of a sinking feeling and discharge. On examination a mass the shape of the uterus was felt in the vagina, and the cervix was felt above it. Could it be an inverted uterus? The mass felt soft; he had never felt a fibroid so soft, and first thought it uterine. On further examination through the rectum, however, he could make out the uterus above without any depression of the fundus. Having satisfied himself that it was not an inverted fundus he cut it off. He thought it probably a sarcoma but it had not yet been examined microscopically. The mass was in a gangrenous condition.

Dr. Booker, from a microscopic examination of some specimens of the tumor, thought it probably a fibro-sarcoma.

Retained Placenta; Hour-Glass Contraction of Uterus.—*Dr. Browne* reported the case of a woman who was delivered four days ago of a seven months fœtus much macerated. The cord snapped and the placenta remained behind. Ergot was given under the supposition that the placenta would be expelled without further aid. Dr. B. was called yesterday; he found the os patulous, the finger going readily into the cervix. He supposed this to be the cavity of the uterus; but pressing down the fundus he found the body of the organ with its cavity above. The finger could enter the internal os but could not dilate it. This was effected by means of Sims' dilator. The finger was then passed into the body of the organ and the placenta, which was as large as the palm of the hand, removed. There was some slight odor but not as much as would be supposed. Hour-glass contractions of the uterus prevent access of air to the placenta. The maceration of the uterus from long retention of a dead fœtus might have caused the trouble. The placenta was not adherent.

Dr. Erich had seen the same condition twice due to small tents.

Hemorrhage after Elytrorrhaphy Due to Sutures Cutting Through the Tissues.—*Dr. Chunn* reported a case of lacerated cervix operated on seven months ago. Two days after the introduction of the sutures there was considerable hemorrhage, requiring injections of alum. On the eighth day the sutures were removed when the supposed cause of the hemorrhage was found in two sutures which had cut their way out and lay loose in the vagina.

A New Method and Instrument for Continuous Irrigation in Vaginal Operations.—*Dr. R. W. Johnson* opened the regular subject, as above given, and exhibited his instrument which he claimed possessed a number of advantages over

those ordinarily in use, and especially that it obviated the danger of communicating disease.

After the announcement of the delegates to the American Medical Association and Medical and Chirurgical Faculty of Maryland, and of the regular subject for the next meeting, the Society adjourned.

Correspondence.

PUDENDAL HEMORRHAGE FROM RUPTURE OF BULB OF VESTIBULE.

BALTIMORE, Aug. 19, 1884.

Messrs Ashby & Cordell:

Dr. T. Gaillard Thomas, in his work on Diseases of Women under the head of Pudendal Hemorrhage, remarks that rupture of the bulbs of the vestibule is an exceedingly rare accident, he having met with but two cases.

Because of the rarity rather than particular interest, I take the liberty to report the following case:

Was called on the night of the 8th inst. to see Miss A. C., white; found her on the floor, her clothing saturated with blood, her appearance indicating a frightful loss.

She said that while standing on the edge of her trunk (the lid being raised), to hang up some article of dress, she fell striking her privates upon the hasp of the lock. A sharp pain was experienced with ensuing hemorrhage, which she could not control. An inspection revealed a puncture at the junction of the labium minus with the majus on the right side, from which blood flowed freely. Hemorrhage was arrested by pressure, and recurrence prevented by cotton tampon retained in position by a T bandage. Saw patient next day and removed tampon; found wound closed. Saw her again on the following day when she complained only of a little weakness and some soreness in the parts.

Ten days have elapsed, and as yet no unfavorable consequences have appeared.

Respectfully,

DR. D. V. MOYER,
192 Aisquith St.

Reviews, Books and Pamphlets.

Theory and Practice of Medicine. By FREDERICK T. ROBERTS, M. D., B. Sc., F. R. C. P., Professor of Materia Medica and Therapeutics and of Clinical Medicine at University College, etc., with (51) Illustrations. Fifth American Edition, 8vo., p. 1008. Phila., 1884. P. Blakiston, Son & Co. Cloth, $5. Leather, $6. (From Cushings & Bailey, Balto.)

This work, with whose merits we now become acquainted for the first time, has attained a high reputation both in Great Britain and America. Its popularity is sufficiently evident from the fact that in a few years it has reached a fifth edition. A rather careful examination convinces us that its reputation is well deserved. The most marked general feature of the work is its simplicity. This extends to its plan no less than its style. The first 90 pages are devoted to the consideration of what is usually treated of as General Pathology or Principles of Medicine, but the division is not a complete one, as we find fever, carcinoma and uræmia in the part allotted to special diseases. General Therapeutics is considered along with General Pathology. Individual Diseases are considered under two headings, 1st, general diseases; 2d, local diseases.

Our space forbids our noticing the work with critical minuteness; besides it would take a careful and thorough perusal of it, which we have not been able to give. We have been struck, however, with the clearness and directness of statement, never exceeding the limits of justifiable and well-grounded belief; the conciseness, never obtained at the expense of lucidity; the absence of theoretical or doubtful propositions; and the comparative rarity of references, which in a text-book are generally tedious and unnecessary. To those who have previous editions it will doubtless be gratifying to learn that in this the author has returned to the plan of issuing the work in one volume. The author has subjected his book to a thorough revision, in which he has had the assistance of several specialists. He has paid particular attention to the section relating to Nervous Diseases, in which such rapid progress has been made. He has availed himself freely of the labors of the International Medical Congress, and has incorporated in his volume whatever he found in them worthy of being perpetuated.

The excellent resumé on Diseases of the Skin (33 pages) will doubtless be highly acceptable to the reader. In conclusion, we would say that the work is thoroughly representative of the latest phase of medical science.

E. F. C.

Health Hints for Travelers. By John C. Sundberg, M. D. D. G. Brinton. Philadelphia, 1884. 12mo. Pp. 61.

A collection of very useful suggestions conveyed in a simple, fresh and entertaining style. The author, who has himself traveled "in almost every climate and quarter of the globe," is evidently something of an enthusiast on the subject, and he succeeds, in a quiet way, in infusing some of his enthusiasm into the reader. We can only express our appreciation of the book by saying that it ought to be in the hands of every one who proposes to travel any considerable distance, especially in foreign countries.

E. F. C.

Students' Manual of Electro-Therapeutics. Embodying lectures delivered in the course on Therapeutics at the Woman's Medical College of the New York Infirmary. By R. W. Amidon, A. M., M. D., Lecturer on Therapeutics in the above College, etc. New York, 1884. G. P. Putnam's Sons. 12mo. Pp. 93.

This little book, as stated by the author, is intended chiefly as a protest against the mysticism and charlatanry which envelope the literature and practice of electro-therapeutics. It aims are:

1. To present that amount of the subject of electro-physics necessary to the proper understanding of the construction and use of medical batteries.

2. To point out the commoner gross physiological effects of electricity.

3. To out-line the method of electro-diagnosis.

4. To determine the kind of electricity and its mode of application indicated in different pathological states.

As a simple introduction to the study of the subject, it may be commended to those who take it up for the first time and wish to advance by easy stages.

E. F. C.

Editorial.

"The School of Salernum. An Historical Sketch of Mediæval Medicine."—Such is the title of a pamphlet of 60 pages, by H. E. Handerson, A. M., M. D., of New York, which has recently reached us. As it may be of interest to the reader to know something concerning this famous institution, we will briefly notice this publication, which we may say shows a vast deal of research, and may be regarded as a valuable contribution to the literature of the subject. What was the School of Salernum; when and where did it flourish? Such will be the natural inquiry of most persons; at least we presume that our own experience, until we made special investigation of the subject, is not an uncommon one. With us there was a vague idea floating through the mind that in ancient, mediæval, or early modern times, some institution or community existed bearing the name of Salernum, and that it had something to do with hygiene or health; but whether it was a purely religious, a literary or a medical establishment, we did not know. The author gratifies our curiosity in the fullest degree in these and other particulars.

Salernum was a town situated on the western coast of Italy, about thirty miles southeast of Naples. The origin of the Medical School of Salernum—for such was its nature—is enveloped in obscurity. It began to come into notice in the 7th and 8th centuries, and it has been conjectured that its founders were fugitives from the city of Alexandria when that city was captured by the Saracens, A. D. 640. The Benedictine order of Monks, who added the study and practice of Medicine to that of religion, seem to have contributed powerfully towards its establishment and secure foundation. Handerson supposes that the organization of a regular medical school was the work of the Benedictines, somewhere about 875–925 A. D. Hence the early Salernian practice is mixed up with many superstitions, and, especially, resort to charms and relics of saints. The earliest writings of the School now extant are contained in the *Compendium Salernitanum*, which is a collection of the principal works of the ealier authors. Gariopontus wrote a work on practice, called *Passionarius Galeni*, about A. D. 1040. The Crusades

greatly extended the reputation of the School, which was on the route to the Holy Land. The *Regimen Sanitatis Salerni* was a work which was dedicated to Robert of Normandy, a celebrated Crusader, and attained immense popularity and circulation. During the 12th and 13th centuries the School was at the zenith of its glory and became the most famous in Europe. In 1224 the Emperor published a decree forbidding the practice of medicine, except after examination by the faculty of Salernum, which then consisted of ten Professors. Three years were required to be devoted to the preliminary study of logic, and then five years to the study of medicine, after which the title of Magister (Master) was conferred upon those deemed worthy. At this time Archimathæus wrote a clinical treatise—the first since Hippocrates. The *Antidotarium* of Nicholas Præpositus was the standard materia medica for several centuries, and illustrates the extreme of polypharmacy. In this work our apothecary's weights are given with very slight variations. Cophon, the younger, wrote a book on the "Anatomy of the Hog"—the chief source of the anatomical knowledge then to be acquired. The Commentary of *The Four Masters* was a work based upon the surgical teachings of Roger & Roland, two distinguished graduates of Salernum, who may be considered as the pioneers of modern surgery. According to the author this "is the most interesting and intelligent work of Salernian origin which has been preserved to us, and is even worthy the attention of our modern Surgeons." Many other works, emanating from the School or its pupils, are described by the author.

We can only refer to the share taken by women in the Salernian system. They were graduates, writers and teachers, and seem to have had equal privileges with the other sex, but the author does not think much of their contributions to the literature of that period. Nevertheless, a learned monk named Rudolphus, visiting the place about 1060, is said to have found no one there able to compete with him in medical knowledge except "quandam matronam."

It is a somewhat singular fact in connection with the history of medicine that learning in Europe should have so declined that the works of Hippocrates and Galen should have had to be translated into Latin from the Arabian. Yet this was done in 1075 by Constantine, "the African."

One of the most interesting features of the subject is the rapid decline of the school, and the study of the causes of this forms one of the most attractive parts of the pamphlet. It seems to have been mainly attributable to the rigid conservatism of the community. Devotion to ancient methods and antiquated authority dominated the institution which thence acquired the title of "Collegium Hippocraticum." It brought forth no great men, announced no great discovery. With the commencement of the dawn of a new era it found itself forced aside by youthful and ardent competitors not tied down by the traditions of the past, and especially by Naples, Bologna and Montpellier. For a time its ancient fame preserved it from encroachment but gradually it became overshadowed by its near rival and sank quietly into obscurity. Petrarch speaks of it in 1350 as "a memory of the past." In 1748 its authority was invoked (the last prominent exercise of it) in the decision of a dispute which arose in Paris relative to ethics. In 1811 a formal decree reduced it to the rank of a preparatory school. The present condition is not stated, although all vestiges of the ancient city have disappeared—the modern town of Salerno being located nearer the coast.

We have not space to point out all the services rendered to the world by the school of Salernum, but they are not to be spoken of flippantly. It must be judged relatively not absolutely. As the only link between the present and glorious past, as the only ray of light in the long ages of mediæval darkness, ignorance and superstition it should always elicit our deepest gratitude and interest.

The Eighth International Medical Congress, which held its sessions in Copenhagen, Denmark, during the present month, was a notable gathering of medical celebrities from all parts of the world. Notwithstanding the fact that it was predicted that the cholera epidemic would defeat the success of the Congress, it was a splendid achievement which attracted some 1700 delegates, a number far exceeding the expectations of the reception committee. The Congress was opened with much ceremony by the King and Queen of Denmark.

The address of welcome was delivered by the President, Professor Panum, who was followed by Sir James Paget in a few graceful sentences, in which he referred to the lasting debt which England owes to the Royal Family of Denmark for its gift of the Princess of Wales, of whom all Englishmen are proud.

Professor Virchow, as the representative of Germany, was the next speaker. He was followed by a short speech from Professor Pasteur. After a statement by Dr. C. Lange, the Secretary-General, the President delivered his inaugural address.

The Sectional meetings were held in different buildings, and the matter presented and discussed covered a wide range of subjects.

The social aspect of the meeting seems to have been well preserved, and the hospitality of the Danish people was generous and profuse. Excursions were made to different points of interest, and among other places to the tomb of Hamlet.

Of the various nations present, the French, German and Scandinavian were most largely represented. England, Italy and America were represented by some of their most distinguished sons.

The scientific work of the Congress will be published in the usual volume of Transactions and the most valuable facts thus presented will from time to time be made known to the readers of this journal.

A generous rivalry existed between Germany and America in reference to the place of meeting of the next Congress. Germany insisted upon the claims of her capital city, Berlin, whilst the claims of Washington, D. C., were urged by the American delegation. The contest was finally settled by the selection of Washington. This brings the next meeting of the International Medical Congress to the United States in 1887, an event which may be looked forward to with considerable professional pride by the profession on this side of the Atlantic.

Death of Dr. Joseph J. Woodward.—In the death of Dr. J. J. Woodward, of the U. S. Army, the army corps of surgeons and the profession at large loses a member who, at one time, held a high and useful position in scientific medicine. Dr. Woodward was born in Philadelphia in 1832, and he received his literary and medical education in that city. After graduating from the University of Pennsylvania in 1853 he was engaged in teaching microscopical and pathological anatomy in that city for some time, and thus early laid the foundation for that scientific accuracy and skill in microscopy which characterized his later work in this department of medicine. At the breaking out of the war Dr. Woodward entered the U. S. Army and was assigned to duty in the Surgeon-General's office. It was from this office that he published his most valuable papers. He became the medical editor of the "Medical and Surgical History of the Rebellion," a work of vast labor and skill, which will perpetuate his fame for many years.

In 1882 Dr. Woodward was elected President of the American Medical Association, but owing to impaired health, induced by his arduous labors in the Government service, he was prevented from presiding over the meeting held at St. Paul.

He was one of the physicians selected to attend President Garfield during his last illness, and it is said the peculiarly trying labor of this case contributed largely to depress a physical condition already overtaxed by hard work. For several years Dr. Woodward was suffering with mental disease and his death, which occurred on the 17th of August, was not unexpected by his friends.

Sanitary Disposal of the Dead.—Whilst men of science are discussing the evils of ordinary burial in large cities from a sanitary standpoint, and are earnestly striving to find out the best method of returning the human body to mother earth without detriment to the living, it may be interesting to learn of a suggestion recently advanced by Dr. N. Agnew, of Winnipeg, Manitoba. Dr. Agnew, in the *Canadian Practitioner* (Aug., 1884), after discussing the different systems of burial, proposes "that the body be enclosed in a suitable hermetically-sealed coffin of lead or iron, and placed in an open-work casket of iron of considerable weight; that a funeral ship be constructed of a size sufficient to meet the requirements of her district; that the dead be placed in her as in a dead-house, and that she make weekly or semi-weekly voyages to the nearest great ocean depression, and there, with becoming reverence, let the dead be committed to the 'Great Deep.' The weight of the external

casket would protect the body and ensure its being carried to the bottom, where nothing would disturb its repose."

"Whilst ocean burial," says Dr. Agnew, "should be no more painful to the feelings than interment, it is surely less revolting than cremation, and it is incomparably safer than either."

It would be well for Dr. Agnew to remember the influence of example, and to order his own body to be disposed of by this method. It is possible, then, that the system he proposes will develop a following.

The Cholera Epidemic Diminishing.—The number of deaths from cholera in Southern France shows that the epidemic is gradually losing its force and is diminishing in severity. In Marseilles and Toulon the death rate seems to be confined to a few individuals each day, not a few of whom are, most probably, refugees who have returned home too soon. In the neighboring towns the mortality continues higher than in the two cities mentioned, but the epidemic does not seem to be gaining ground at any point at present. No authenticated case has occurred in Paris or any of the larger cities of Europe. All of the English ports have escaped, though infected ships have given temporary anxiety by their arrival in English harbors. The manner in which the disease has been kept from spreading over larger sections of country is due to the prompt and vigorous sanitary methods adopted by National, State, Municipal and Local Health Boards. Perhaps European and American cities have never received a more universal and thorough scrubbing and cleansing than during the present summer. It is believed that all of this good work will be of vast service in preventing other foul air diseases. Cholera, then, is not an unmitigated evil.

Pasteur's Experiments with the Virus of Rabies have been investigated by a committee appointed to inquire into the reality of the protection afforded against hydrophobia. This committee has entirely verified his conclusions. Of 23 dogs which were submited as protected all have been found proof against inoculation with the virus of rabies, whilst of eight unprotected dogs on which intra-venous inoculation was performed, and five unprotected ones which underwent trepanning and inoculation, all became mad.

Miscellany.

Secondary Suture of the Median Nerve.—At a recent meeting of the Academy of Sciences, says *The Lancet* (July 19th), M. Tillaux related two cases of secondary suture of the median nerve, followed by rapid restoration of the functions in the parts depending upon it. The first was a young girl, who cut the front of her wrist whilst cleaning some windows in November, 1883. The wound healed without suture of the nerve being performed, and there remained complete paralysis of all the parts supplied by it. Incapable of working, the girl went to the Beaujon Hospital to seek relief. The parts supplied by the median nerve were found to be colder than on the opposite side, and of a slightly violet color. Notwithstanding the discouraging nature of the case, M. Tillaux decided to give the patient a chance. The ends of the nerve were found about a centimetre distant from one another, the central one bulbous, the peripheral atrophied. They were cut so as to present a fresh, equal surface, and carefully drawn together by a hair suture (*crin de Florence*). An antiseptic dressing was applied and the limb immobilized in extreme flexion. Two days after the operation sensibility began to return and increased daily. Six weeks later she left the hospital with sensibility and movement entirely restored. The other patient was a woman, who, witnessing the result in this case, begged M. Tillaux to operate upon her also, notwithstanding that the accident had occurred fourteen years before. The operation was identical, and the next day sensibility began to return, and was soon entirely restored. The physiological curiosity of these cases lies in the fact that when examined microscopically (by M. Ranvier) the portions of nerve removed exhibited no trace of cylinder-axis, and that it is difficult to explain the restoration of function by our present ideas on the subject. M. Tillaux's observations may be the starting-point of an important discovery.

Scene: An Irish cabin. Pat is ill. Doctor has just called. "Well, Pat, have you taken the box of pills I sent you?" "Yes, sir, be jabbers I have, but I don't feel any better yet; maybe the lid hasn't come off yet."—*American Druggist.*

Five Cases of Extra-Uterine Pregnancy Operated Upon at the Time of Rupture, by Lawson Tait, Esq., F.R.C.S.—Mr. Tait has seen some five or six-and-twenty cases of rupture of extra-uterine pregnancy, and, having been encouraged by his success in the surgery of other abdominal diseases, resolved to try what surgery could do in these cases.

For this treatment, of course, the main difficulty is in the diagnosis, but this is a small matter to Mr. Tait, who has now completely adopted the principle of always opening the abdominal cavity when he finds a patient in danger with abdominal symptoms. The diagnosis is not, perhaps, so difficult after all. In many cases the existence of pregnancy has been suspected before the rupture occurred. In the majority of these cases there is a misleading feature; the patient has never been pregnant, or has not been so for years, so that arrest of menstruation does not attract particular attention. If, however, it be found that the patient has been eight weeks or more without a period, that there is a pelvic mass on one side of the uterus and fixing it, and if sudden and severe symptoms of pelvic trouble and hemorrhage come on, the rupture of a tubal pregnancy may be suspected, and if an operation is to be done—and it clearly ought to be done—it must be done without delay. So says Mr. Tait, and adds: "Early interference is clearly a chief element of success in modern abdominal surgery." He appends the report of five cases thus treated—abdominal section, ligature of the tube and its removal, and then careful toilette of the peritoneum—before closing." Of the five, four recovered.—*British Medical Journal, June* 28, 1884.—*Canada Medical and Surgical Journal.*

Combined Version in Placenta Prævia.—C. Behm has used combined version in forty cases of placenta prævia without a single death. This must be regarded as an extraordinarily good result for a condition which ordinarily gives a mortality of forty per cent. Hofmeier has already obtained similar results in the treatment of placenta prævia.

The operation is performed as follows: When dangerous hemorrhage comes on the vagina should be tamponed until the cervix is closed. This being done, and the woman anæsthetized, the whole hand is introduced into the vagina, and two fingers into the cervix. If the membranes are present the operator endeavors to rupture them with the finger, then draws the presenting part (unless it be the buttocks) to one side, at the same time making pressure from without so as to carry the buttocks down until he can grasp a foot. This is drawn through the cervix, so that the breech acts as a tampon on the lower segment of the uterus, and the placenta is pressed against the sides of the uterus. In central implantation of the placenta the finger should be pushed through the centre.

After this version the operator waits for the spontaneous expulsion of the child, or, at least, complete spontaneous dilatation of the cervix, in order to complete delivery. The duration of labor after version is between one-half an hour and eleven hours, the average being one or two hours.

The mortality for the children by this procedure is very great, but the chances for the mother are better. The mortality for the children is, however, no greater than by the old operation.

The causes of the great mortality of the mother under the use of the continuous tamponade is the infection through the blood and other matters adhering to the tampon.—*Centralbl. f. d. gesammte Therap.*, July, 1884, *Med News*, Aug. 16.

Chronic Heart Disease and Pregnancy.—This is the subject of an inaugural dissertation by G. Wessner, of St. Gall, who gives the following *résumé*, after a careful review of the literature of the subject:

1. There is no specific physiological hypertrophy of pregnancy. The heart of the pregnant woman only obeys the general law that the mass of the cardiac muscle increases with that of the body.

2. Other grounds for believing in a physiological hypertrophy are faulty, and cannot be brought into pathological relation.

3. The conditional hypertrophy of the heart, of pregnancy, caused by increased body-weight, is so slight that it can only be considered as a danger in very severe heart trouble.

4. The causes of the unfavorable influence of pregnancy on heart troubles lie not so much in the increased cardiac activity, on account of the pregnancy, or the pressure

suddenly removed by labor, and the high position of the diaphragm, as in the psychical and physical fatigue of labor, which reacts on the heart.

5. But, as statistics show, these are endured in by far the greater number of cases without especial damage. It seldom occurs that severe heart trouble is specifically due to pregnancy, but it more usually happens that we have to do with very severe heart disease as a secondary complication.

6. As malignant endocarditis occurs especially in the course of old heart diseases, so it also seems to occur after labor, as septic poisoning.

7. The prognosis is considerably better for both mother and child, if it exists from the beginning.

8. The treatment is symptomatic, not the performance of premature delivery, but hastening labor if necessary.

Of this thesis Kriworotow, the translator, makes the following remarks: Wessner has drawn these conclusions from a collection of 77 cases in German and other literature, which showed various forms of heart trouble at birth. In these cases 42.9 per cent. had no, or only slight symptoms; 19.5 per cent. had severe symptoms; and 37.6 per cent. died. But Wessner, after critical examination of these cases, very much reduces the percentage, while he considers the further complications.

The independently worked-up material gives striking and interesting results. Of 25 women with heart disease, which were observed in the Clinic at Berne, there were 93 labors and only 1, a primipara died. She was twenty-eight years old, had mitral insufficiency and double pneumonia, and during the fourteen days preceding labor had extensive œdema of the lower limbs. The child was born dead. At the autopsy of the mother, who died on the day of labor, the clinical diagnosis was completely verified, the kidneys being also markedly congested. The other 24 women had no especial trouble.—*Centralbl. fuer Gynæk.*, June 21, 1884, *Medical News*, Aug. 9.

Billroth on Precautions Against Cholera.—(*Translated for Md. Med. Journal*).—At a meeting of the Vienna Sanitary Society the chairman, Prof. Billroth, delivered a lecture, a short sketch of which follows: In France, viz.: Toulon, we have a repetition of the fact usually observed during such epidemics, that those who have continually been deaf to the advice of physicians, at the first outbreak of the epidemic lay all blame upon them, and at the same time expect from them alone help. I must confess that the comparatively few cases of cholera noticed so far do not awe me. Their number is decidedly small, and it is probable that the sickness will soon be limited to its place of origin. I have witnessed a number of cholera epidemics. While a student my teacher took me to the cholera hospitals, and later I lived in barracks, where the rooms adjoining mine were occupied by cholera patients, so that now I no longer have any fear of this disease. In fact, cholera is comparatively easy to keep within bounds and diminish; it is a question of money and water. By the examinations of Thiersch, in Münich, the manner of contagion and the mode of spread have been definitely settled. Everything which is now known has but verified the opinion that the secretions of the patient are not contagious at the moment of their being discharged. It has been proved by Thiersch that the excrement must be left for some time before that matter develops in it which has the power of producing a new case; it follows that if we can prevent the leaving and drying of the discharges, we will be able to keep the water-closet, the room, the house, the locality free from contagion. A closer examination of this point is quite interesting. It is well known that a small plant is named as carrier of the disease. Now, as the germ of every plant must rest for some time in the ground before it sprouts, so these minute plants which are carriers of disease need a certain time of rest before they begin to germinate, and only a growing bacillus is a generator of sickness—a bacillus which is not growing can do no harm. Many of these bacilli produce during their growth a matter somewhat like the ferment (?) of barley by which only during its time of sprouting can starch be converted into sugar; with a fully developed barley plant this can occur no longer. In the same manner the poison or ferment stuff, which vitiates the tissues (fluids) of the body, only develops in bacilli during their time of germinating, and certain conditions are indispensable to their growth. For example, if we place a tubercle bacillus on the cornea of a rabbit's eye, nothing can be seen for the first 10–14 days,

but after this time the transplanted tubercle develops. The small plants found in the discharges of cholera patients are interrupted in their growth as soon as they are brought to another place; so if all the discharges caused by vomiting, etc., are removed at once cholera can no longer be produced. But this cannot be done as quickly and thoroughly in the narrow habitations of the poor, where the want of bedclothing prevents its frequent change, where individuals are crowded together, or where there are sinks without an outlet, where the cholera bacilli can progress without interruption; this is the chief reason why cholera makes such great ravages and spreads so suddenly among the poorer classes. Persons of means in well-ventilated houses, with well-planned water-closets, and plenty of flowing water; persons who are able to have the soiled bedsheets changed immediately, to transfer the patient to another bed, to wash the soiled garments at once in a weak solution of ————————, to render the sick prompt assistance, to secure absolute cleanliness; such well situated people have less to suffer from the contagious properties of cholera. Of course a great amount of water and a thorough system of canalisation is necessary (as has been remarked very correctly) to maintain absolute cleanliness by sweeping away the matter poured into the canals. Only by this thinning of the contagious matter, by the enormous division and distribution, and by its prompt removal from the scene of the epidemic, can the latter be checked and conquered. Of course the wealthy may also be infected with cholera in hotels or on railways; but it must be repeated, that it is noticed, over and over again, that the poor are the class, who, for the above-mentioned reasons, suffer mostly from it. It may well be said that cholera has for some time, in regard to the manner of its spreading, been one of the best known diseases, and so the eventual difficulty of its being overcome certainly does not result from our lack of knowledge of the mode of infection. Sometimes a poison develops of so intense a nature, and disorganizing the blood so suddenly, that life cannot continue longer; but there are many cases where, by immediate removal of the secretions, many persons are preserved from contagion. Cholera is, therefore, not to be classed among the most dangerous diseases. For example, diphtheria is more fatal. A few days ago I received a written report from Prof. Rosen, in Berlin, showing the astonishing number of 341 cases of diphtheria which had occurred in Bethanien, the best conducted hospital in Berlin; 241 operations had been necessary, and five-sixths of the patients died. That was only in one hospital. Taking others into account, one can assume four to five individuals daily to die of diphtheria in Berlin. In comparison cholera is by far not so dangerous; the percentage of mortality does not rise to five-sixths. That may happen in the beginning, when the intensity, as is generally the case in epidemics, is greater. This depends upon the question of water supply, as we must confess to ourselves that the influence of physicians resides chiefly in the prophylaxis. The health system of cities is one of the most highly important questions and cannot be over-estimated, and not all blame should be attached to the doctors when epidemics occur, after we have done our utmost to show where the fault lies.

Claims of Our Medical Schools Upon the Public for Recognition and Support. —The much-to-be-desired advancement of medical instruction is not possible unless the institutions are properly endowed. One would naturally suppose that the medical institutions would be the first to receive the fostering care of a government and the public. And yet in this country the reverse is the case. While our academies, colleges, and other seminaries of learning are frequently the recipients of liberal donations and are encouraged and sustained by the favor of the community, our medical schools, strange as it may seem, appeal in vain for aid or sympathy. No school has been founded on an independent basis; but few, if any, have received more than the most meagre endowments, while all have had to struggle for an existence and to contend against the indifference of the educated classes and the ignorant prejudices of the populace. The medical profession is the one from which the public demands the most—for which it does the least. And this, notwithstanding the fact that this profession is the one above all others with whose success the interests of the public are most closely identified! It is the people in general who reap the advantage from every advance in medical science, from every successful effort to raise the standard of the

profession. It is for the interests of the community, then, to aid the medical institutions of the country in the efforts both to promote the efficiency of their instruction and to advance the science which is of so great an importance to mankind. Gradually the idea is gaining ground that the work of our higher educational institutions should not be confined to the instruction of the class or the lecture room. We are beginning to realize that these institutions have another and a larger sphere of usefulness; that they should be the centers of the intellectual activity of our national life, and, through the work of original research, should enlarge the bounds of our knowledge in every field of thought. In no institution of learning is this more necessary than in the schools of medicine. The medical department of a university should not confine its labors solely to the work of preparing young men for the practice of their arduous profession, but should endeavor also, through the steady pursuit of investigation, to develop the science of medicine in all its branches. In order, however, that they may be able to accomplish this work, and impart instruction as well, in the most thorough manner possible, they must be able to maintain a large and permanent staff of professors, whose time will not be occupied wholly with the work of the lecture-room or with the outside practice of their profession, but can be devoted in large part to the advancement of their various departments. They must, furthermore, be furnished with the necessary museums, pathological institutes, physiological and chemical laboratories, etc., and equipped with all the forms of apparatus which are needed for the prosecution of researches or for lecture illustration; and, finally, they must be supplied with means to pursue these investigations. Surely a greater work for humanity cannot be done in this country than through the establishment of such an institution on a firm and independent basis, nor can a grander opportunity be found for the bestowal of private benefactions. Such, in brief, is the position which the medical schools of the country should occupy.—*Prof. Geo. A. Smyth, Ph. D., of Connecticut.*

Beneficial Effects of Convallaria.—After detailing a case in the *Practitioner*, April, 1884, Dr. Frederick T. Roberts says:

My experience of the use of convallaria in cases of cardiac disease has not hitherto been so satisfactory as the reports of the value of the drug had led me to expect (*Practitioner*, xxix., 226, 384); but in the case just described, the good effects resulting from its administration were marked and unmistakable. Practically, it might be summed up as a case of mitral obstructive disease, with irregular and inefficient cardiac action; deficient secretion of urine; moderate dropsy of the legs; and considerable ascites. Whether or not the last-mentioned symptom depended partly on morbid changes in the liver is doubtful. The obvious results of the administration of the convallaria were:

1. A distinct improvement in the action of the heart, which became more regular and efficient, while the thrill and murmur became more evident.

2. A considerable and progressive increase in the quantity of urine produced.

3. Rapid diminution and ultimate disappearance of the œdema of the legs and the ascites.

The compound jalap powder helped, no doubt, to get rid of the last symptom; but the other effects noted were, unquestionably, due to the convallaria, and the increase in the quantity of urine must have been an important factor in removing the dropsical accumulation. I have thought it worth while to report this case in support of the value of convallaria in the treatment of cardiac affections, although I do not for a moment believe that it will entirely supercede other drugs. The patient is now practically well, so far as symptoms are concerned, but the signs of the mitral obstructive disease are very distinct.—*Medical and Surgical Reporter, June* 7, 1884.

Retention of a Laminaria Tent in the Uterus.—Dr. Emerson, before the New York Clinical Society, March 28th, related the case of a young married woman who had come to his clinic complaining of repeated uterine hemorrhages. A history of pregnancy and of early abortion was elicited, and it was determined to dilate the cervix and explore the uterine cavity. The cervix was firm, and the uterus was slightly anteflexed. Some difficulty was met with in passing the uterine sound. A laminaria tent, two inches and a half long, was introduced. On attempting to remove this,

twenty-four hours later, the silk thread was pulled off, but the tent did not come away. Various attempts at dilatation and removal with forceps, etc., were unsuccessful. The cervix was then slit up half an inch on each side, but without success. A tampon was applied, and a dose of ergot was given. On the following day the patient was anesthetized, and attempts were again made to extract the tent with forceps of a number of kinds, but to no purpose. The cervix was then divided freely through the os internum, and just at that time the patient vomited, with the result of starting the tent, so that it was easily removed with a tenaculum. The retention of the tent had been due to the anteflexion, which it had partially corrected. The patient was now doing well, and had had no bad symptom. The incised cervix had not yet been brought together.—*New York Med. Journal, Louisville Med. News.*

Transmissibility of Pulmonary Phthisis.—The following are the conclusions of a committee of the "Hospitals Medical Society of Paris", appointed to investigate the above subject. (*Record*, Aug. 16.):

1. The transmissibility of pulmonary tuberculosis is very probable, though not as yet indubitably proven by facts.

Isolation of consumptives, in the same sense as that of patients suffering from diphtheria or small pox, is neither necessary nor desirable. Yet in view of the probable contagiousness of the disease, the public should be urged to adopt certain prophylactic measures similar to those enunciated in the body of the report.

Medical Items.

A candidate for practice applying before an examining board in Texas was asked "of how many bones the human skull was composed?" He replied: "Five, namely, frontical, oxbital, uptical, and two collateral."—*Texas Courier-Record.*=Dr. Arthur Gamgee, F.R.S., has been appointed Fullerian Prof. of Physiology of the Royal Institution for three years.=Dr. Eugène Ritter, Professor of Medical Chemistry and Toxicology at the Faculty of Nancy, has died, aged 47.=According to the Leipzig correspondent of the *Canada Med. and Surg. Journal*, Prof. Cohnheim, the eminent pathologist of Leipzig, is seriously ill with chronic Bright's disease (gouty), and, of course, there is no prospect of his recovery.=In the *Record* of the 16th, Dr. W. H. Geddings, of Aiken, S. C., describes "A Case of Indigenous Leprosy," with a portrait of the patient, a young unmarried woman, æt. 20, of English descent. Twenty cases observed in Charleston and vicinity during the past twenty-five years have been observed by the author. It occurs among whites and blacks. Cases are not isolated nor are they feared or shunned there.=A million and a half people are said to have visited the International Health Exhibition in the two months of its existence.=The authorities of Vienna have sent a commission—two physicians and three sanitarians—to France to investigate the cholera.=There have been five importations of Asiatic cholera into this country, viz., in 1832, 1848-49, 1854, 1865-66, 1873.=The model "grateful patient" is the London art dealer, Mr. King, who at his death left half a million of dollars to St. George's Hospital, and more than half a million dollars to his medical adviser, Dr. Roper.=Dr. S. S. Todd, Prof. of Diseases of Women, Kansas City Medical College, proposes to treat cholera by hypodermatic injections of a saline solution resembling the serum, with a large-sized 4 oz. syringe.=The Third Otological Congress will meet at Basle, Switzerland, September 1st, 1884. There are no American communications on the programme.=The University of Heidelberg, Germany, has refused an offer of 100,000 marks, conditioned upon admission of women.=Dr. Wm. Osler, of Montreal, now in Europe, is spoken of by the *News* as the probable successor of Prof. Pepper in the chair of Clinical Medicine, University of Pennsylvania, lately vacated by the promotion of the latter.=The Honorary Gold Medal of the Royal College of Surgeons of England was awarded on the 5th inst. to Sir Erasmus Wilson, since deceased, "in recognition of his great liberality in contributing to the Museum in endowing the Pathological Curatorship, and in founding the Professorship with which his name will always be associated and held in honor."=Schramm shows by statistics of 190 laparotomies done for occlusion of the intestine that the rate of mortality has fallen in ten years from 73

per cent. to 58 per cent.=℞. Tr. Cantharidis, Tr. Capsici aa f℥iss, Ol. Ricini, f℥ii. Spts. Lavandulæ, Spts. Rosmarini, aa f℥ss. M. Sig.: Apply daily. Recommended by Prof. Duhring in *Medical News* for alopecia areata, as a stimulating lotion, full strength or diluted.=Prof. Mastin, of Mobile, reports a case of prostatic calculus (*News*, August 6) which weighed ℥vii, grs. x, or 430 grains Troy, one of the largest single prostatic calculi on record.=The authorities of Bellevue Hospital Medical College have filed plans for the new Carnegie Laboratory, which is to be built on the south side of Twenty-sixth Street, 75 feet east of First Avenue. The structure will be 50 feet square and five stories, or 70 feet, high. The cost is estimated at $50,000.=Lawson Tait is coming to America.=It is stated that the College of Surgeons, as residuary legatees, will come in for about £180,000 by the death of Sir Erasmus Wilson.—*Med. Times and Gazette.*=Dr. J. E. Landry, for more than twenty-five years Professor of Surgery in Laval University, Quebec, is dead. Also M. Bouisson, Professor of Operative Medicine at Montpellier, France, æt. 71.=Dr. Lannelongue has been appointed Professor of Surgical Pathology at the Paris Faculty of Medicine, vice Le Fort transferred to Clinical Surgery. =The death of Sir Erasmus Wilson occurred on the 7th inst.; his disease was inflammation of the bowels. For the last twelve months he had been almost totally blind. =The Physiological Laboratory of Berlin was established by Du Bois Raymond, with the assistance of Prof. Johannes Müller, in 1853; Prof. Virchow founded the Pathological Institute in 1856; the Pharmacological Institute was completed under the direction of Prof. Liebreich last year; and now the Hygienic Institute has been inaugurated in the University under Koch.=Dr. Schweninger, who restored Bismarck to health, has been appointed Exceptional Member of the Imperial Board of Health and Extra-Professor of the Berlin University. The medical faculty is said to disapprove of it.=Dr. J. E. Chancellor, formerly of Charlottesville, Va., has been elected Professor of Obstetrics in the University of Florida.=Dr. T. Stanley Beckwith died at Petersburg, Va., on the 22nd instant, æt. 71. He was a native of Raleigh, N. C., and brother to Bishop Beckwith, of Ga.=It appears that Dr. J. J. Woodward, Surgeon, U. S. A., whose death at an asylum near Media, Pennsylvania, has been already announced, committed suicide by throwing himself from the roof in a fit of mental aberration. He was best known for his original microscopical researches and for the Medical History of the late War, which he edited.=A library of 8,000 volumes was one of the features of the Copenhagen Congress.

Official List of Changes in the Stations and Duties of Officers Serving in the Medical Department U. S. Army, from August 19, 1884, to Aug. 25, 1884 :

Crampton, Louis W., Captain and Assistant Surgeon, to report at Creedmoor, L. I., New York, not later than Aug 30th, as competitor; and, in addition thereto, as Medical Officer of the detachment of competitors.

Cochran, J. J., First Lieutenant and Assistant Surgeon, assigned to duty at the Presidio of San Francisco, California.

Wilson, Geo. F., First Lieutenant and Assistant Surgeon, relieved from duty at Fort Walla Walla, W. T., and to take station at Vancouver Barracks, W. T.

Fisher, W. W. R., First Lieutenant and Assistant Surgeon, when relieved by Assistant Surgeon Cochran, to report in person to Commanding General Department of Arizona for assignment to duty in that Department.

List of Official Changes in Medical Corps of the Navy during the week ending Aug. 23, 1884:

Past Assistant Surgeon P. M. Rixey, orders to U. S. S. "Lancaster" revoked. To continue on special duty.

Medical Director C. Martin, to be retired Aug. 21, '84.

Surgeon T. C. Heyl, detatched from U. S. S. "Independence," ordered to U. S. S. "Adams."

Surgeon J. G. Ayers, detached from U. S. S. "Adams," placed on waiting orders.

Assistant Surgeon L. W. Curtis, detached from U. S. S. "Adams," placed on waiting orders.

Past Assistant Surgeon F. B. Stephenson, detached from Navy Yard, New York, ordered to C. S. S. "Bache."

Past Assistant Surgeon E. Z. Derr, detached from C. S. S. "Bache," placed on waiting orders.

Original Papers.

PROOF THAT HUMAN MILK CONTAINS ONLY ABOUT ONE PER CENT. OF CASEIN; WITH REMARKS UPON INFANT FEEDING.*

BY ARTHUR V. MEIGS, M. D.,

Physician to the Pennsylvania Hospital and Children's Hospital.

(*Continued from page* 344.)

The weight of testimony that cows' milk contains much more casein than human milk is so great that it is astonishing how almost universally the analyses of human milk of Vernois and Becquerel, and of those who have arrived at like conclusions, have been accepted and given credence, in despite of the fact that the evidence of the senses of every one who has examined into the matter is diametrically opposed to such an acceptance. Although, as already said, the weight of authority has long been in favor of the use of diluted milk, still there have always been those who recommended it to be used pure. Of later years more and more has been said and written upon the advantages to be derived from the use of cream, or diluted cream. Dr. J. Forsyth Meigs, who was a well-known authority upon the complaints of children, for years used with great success a mixture of equal parts of milk, cream, lime-water, and a weak arrow-root water, with a little sugar. Cream mixed with whey, to increase the sugar and lessen the amount of casein, has been recommended. Biedert (Virchow's Archiv., Band 60, 1874) has written an article, and concludes that the best food is cream and water, one part to four, with 15 grammes of milk-sugar to the half litre of the mixture, the strength of this to be gradually increased. Biedert made many experiments comparing the relative coagulability of human and cows' milk, and again the digestibility of the coagulum; as can, therefore, be presupposed, his experiments turned mainly upon the two kinds of casein and their differences. He concludes that "there are two important points in which human and cows' milk are unlike: first, in the different amounts of casein contained; and second, in the absolute chemical difference of the two sorts of casein. The first of these considerations would be of but little importance, however, if the analyses which place the average of casein in human milk at 4 per cent. are correct; its importance, on the other hand, would be very great if it usually contains—as I, in agreement with Vierordt's view, believe—only from 2 to 2½ per cent. I think many further analyses are necessary to establish absolutely this point. Even if this view is accepted, however, dilution of cows' milk with equal or more parts of water is not sufficient to remove the differences. It is well known that such a dilution does not remove all the disadvantages which arise in the use of cows' milk, and my clinical experience has taught me that even dilution with two parts of water does not attain the desired end; and the explanation of this positive irremovable difference is to be found in the important chemical differences which exist, the casein of cows' milk coagulating so much more easily, and the coagulum being so much more firm than is the case with the casein of human milk; and, on the other hand, the coagulum being so much more difficult of solution or digestion.

"Until we succeed in actually making the casein of cows' milk identical with that of human milk, it will be necessary to give infants only so much of it as they can digest (no matter how great the neeessary dilution may be), and to make up to them with carbo-hydrates (fat and milk-sugar), the lack of albuminates in the food." He further says: "After numerous experiments I have come to the conclusion that the amount of cow casein which an infant's food should contain is 1 per cent. The fat and sugar in cows' milk appear to be as easily digested, and in no wise different from those contained in human milk. If, therefore, one-eighth of a litre of sweet cream (which, according to Hoppe, contains 9½ per cent. of fat, 3 per cent. of sugar and 4 per cent. of casein) is diluted with three-eighths of a litre of water, which has been previously boiled, and milk-sugar is added in the proportion of 15 grammes to the half litre, the desired cream mixture is produced, and contains 1 per cent. of casein, 2.4 per cent. of fat, and 3.6 per cent. of milk-sugar, which will be found, under all circumstances, to be well borne, and is a sufficiently nourishing food." The greatest part of Biedert's admirable article consists

*Read before the Philadelphia County Medical Society.

of a detail of experiments made of treating cows' and human milk, and the caseins obtained from both sorts, with a variety of reagents, and observing the different relative effects produced. His conclusion is that "the pure casein of human milk is, in both its physical and chemical nature, different from that of cows' milk." The casein of cows' milk, when isolated has always an acid reaction, while, on the contrary, that obtained from human milk is always alkaline. If human casein is treated in a certain way with acid, there is produced an "acid modification of human casein," which has many points of resemblance with ordinary cow casein; on the other hand, by treating cow casein with alkali, a substance is produced which shows, with many reagents, identically the same changes that are, by like treatment, produced in human milk. After careful examination of these two substances, however, Biedert concludes that "cow casein treated with alkali is, in many respects, much more like human casein than the original cow casein, yet it always shows unmistakable differences." Although he makes a strong case, and there are many reasons in favor of accepting his conclusions, yet, in the present state of knowledge of casein, the difference cannot be considered as absolutely demonstrated.

There are objections to such a belief; it has been already shown that human milk contains only one-third the amount of casein that exists in cows' milk; and there is a further important difference, which Biedert also appreciates, that human milk is always alkaline, while, on the contrary, cows' milk is acid. A coagulum, therefore, produced in a solution which is relatively so concentrated as is the case in cows' milk, and further, in a fluid which is acid in reaction, is a very much denser and larger one than can be had from the relatively weak solution in human milk; and it is quite possible, therefore, that the difference may be owing to the different degrees of concentration, and the difference of the fluid media in which the casein is held; it cannot, therefore, yet be conceded that Biedert has absolutely demonstrated that the two caseins are chemically and physically different, although he has brought many strong arguments to bear. It is impossible to decide with certainty about casein in all its relations, while as yet it is not even known whether it is a simple or compound substance. Its solubility or insolubility after it has once been precipitated depends in great part upon how the original coagulation was effected, and whether or not it was thoroughly dried. If casein is once thoroughly dried for a good many hours at 100° C., it becomes absolutely insoluble in water, and will not dissolve even in a strong solution of caustic soda. Lehman (Physiological Chemistry, Cavendish Society Translation, vol. i., p. 378) says: "I believe that the jelly-like coagula of women's milk are more dependent on the alkaline state of the fluid than on any peculiarity in the casein; at all events, I have found that women's milk, when acid, yields a much thicker coagulum than when alkaline, and cows' milk, when alkaline, a much looser coagulum than when acid—facts of the highest interest and value in relation to dietetics."

Whatever may finally be decided about casein—whether those of cows' and human milk are as different as Biedert believes he has proved, or whether they are nearly alike, the difference being merely that the quantities are not the same and the containing fluid media different—what most concerns the subject in hand is the relatively small quantity which exists in human milk; for it shows conclusively that in a food for infants the amount of casein in cows' milk must by some means be reduced to equal the amount in human milk. The correct conclusion of Bievdert, that not more than 1 per cent. of cow casein should be present in a food for infants, is the more surprising, as he arrives at the opinion from a totally different reason from the true one that human milk contains only 1 per cent.

Although Biedert's conclusions are very instructive, as he arrives at them from clinical experience, and surprisingly correct in many respects, he goes astray in assuming an incorrect standard of the average composition of cream. The estimate of Hoppe which he assumes to be correct, places the amount of casein too high; for, as may be seen by a reference to my table, cows' milk and cream do not contain more casein than sugar. The usual estimates rate the casein too high, at the expense of the sugar. This being the case, and Biedert reckoning the composition of his cream mixture from this incorrect standard, and not from any analysis either of the cream or the mixture itself, as should have been done, places his

amount of fat too low, as only a very poor cream is so weak in fat as his standard rates it. A mixture made as he directs is far weaker in sugar than human milk, and, therefore, although perhaps proper for temporary use in cases of indigestion, cannot be accepted as a standard of what an infant food should be; and it entirely fails to accomplish what he says should be done—make up to the infant by an excess of carbo-hydrates the lack of albuminates which exists in the food—for it only contains about half as much sugar as exists in human milk.

All these facts show that the tendency has been constantly toward the truth, and that physicians have been learning empirically for what reasons cows' milk has failed as an infant food, and how the difficulties which its use entailed were to be overcome. The use of cream has been advised; cream and whey; diluted milk; diluted milk with milk-sugar; cream, milk, lime-water and arrowroot water; and finally comes Biedert's cream mixture, and he arrives more nearly at the true solution of the difficulty than any of the others, but still falls wide of the mark, from want of a precise knowledge of the composition of human milk, and of cows' milk and cream.

Investigators have thus, year by year, and step by step, been approaching the desired goal, and it needed but a touch for light to be let in upon the whole subject. Many hours and much careful and patient labor have been expended in investigations in this field, and no single worker could have done his part without having the results of the labors of his predecessors before him, to guide him a long way in the field, and give him easily the knowledge which would enable him, after much toil and trouble, to advance one little step more towards what was previously unknown. Thus, no individual investigator, no matter how important the advance in knowledge he may have made, should assume too large a share of credit; for it can be but a very small part of the great whole, and would be valueless but for the rest, into which it fits, and completes that which would otherwise be useless.

The necessary data being now at hand, it is comparatively easy to construct a food which shall, at least, be more nearly what is needed than any previous one. In making such a food, there are two matters to be considered: the proximate constituents must be in the same relative proportions as they are found in human milk, and they must be in a medium which shall be, as human milk is, alkaline. This latter end is easily accomplished by the use of a due amount of lime-water, and is justified by the fact that it is a matter of experience, almost universally acknowledged as true, that it is a most useful adjunct, rendering cows' milk more easy of digestion by the human stomach. The quantity of lime-water to be used should be one-fourth of the total by measure. This may seem to many persons an excessive quantity, but when it is understood that if made as ordinarily directed, by agitating water with lime and then filtering, it contains only two decigrammes of lime in each litre, it becomes plain that the use of lime-water means the administration of a great deal of water and very little solid matter. The above estimate was arrived at by direct experiment; 10 c. c. of freshly-made, filtered lime-water, being evaporated, was found to yield 2 milligrammes of lime. This is a very large estimate of the amount of lime soluble in water, as may be seen by reference to the U. S. Dispensatory, or the National Dispensatory, both giving it as much less. That the use of lime-water (alkali) in an infant food makes a difference in its behavior with some reagents is shown by the following experiments: A food was made in the proportions which will presently be given, and 10 c. c. of it agitated with ether and alcohol, as directed in my previous paper read before the Society, for the extraction of the fat; it was found that the coagulation took place in the form of a fine network, which remained permanently distributed through the lower stratum of the liquid, no sediment forming at the bottom. When an exactly similar mixture was made, except that the lime-water was replaced with water, leaving the fluid acid, and this agitated with ether and alcohol, thick, heavy curds formed, which at once sank to the bottom. Again, when two mixtures—one with and the other without lime-water—were treated with 10 drops of acetic acid, the one without lime-water showed much larger, heavier coagula than that which contained lime-water. These experiments show with certainty that the addition of lime-water does alter the coagulability of the casein when experimented with, whatever may take place in the stomach; and I have already quoted Leh-

man's opinion that the acidity or alkalinity of milk makes a difference in the formation of the coagulum. Whatever may be the value of these artificial experiments, the great reason for the use of lime-water is that the experience of man has found it good, and that is sufficient reason for its use in the present state of knowledge. It is quite possible that in the future something better may be found—phosphate of lime, perhaps, for it is the salt which exists in milk in larger quantity than any other; but further and exhaustive study of the inorganic constituents of both human and cows' milk will be required to place this matter upon an exact scientific basis. It is very desirable that further study of the salts of milk should be prosecuted, and it is much to be hoped that in the near future exhaustive analyses will be made. The amount of inorganic matter in cows' milk is so much greater than that in human milk that, as there is at present no means of removing it without altering or destroying the other component parts, no infant food can be made exactly like human milk in respect to the amount of salts contained.

So far as bringing the other proximate constituents to like proportions with those inhuman milk, the first step must be to so dilute with water as to get the desired quantity of casein; the fat and sugar can be increased by the use of the necessary quantities of cream and commercial milk-sugar. Taking the averages of cream and good city milk as already given, it will be found by calculation that if there be mixed together 10 c. c. of cream, 5 c. c. of milk, 10 c. c. of lime-water, and 15 c. c. of water, with 2.2 grammes of milk-sugar, the desired mixture is had. That this is the case should not be trusted to mere calculation, but an analysis of the mixture should be made, both to verify the calculation and to observe how the mixture behaves when subjected to the analytic processes, whether it in its reactions more closely resembles cows' milk, with which it is made, or human milk.

The easiest way to prepare and use the food is as follows: There must be obtained from a reliable druggist packages of pure milk-sugar containing seventeen and three-quarters (17¾) drachms each. The contents of one package is to be dissolved in a pint of hot water, and it is best to have a bottle which will contain just one pint, as there is then no need for further measuring. The contents of one of the sugar packages is put into the bottle, and when filled with hot water the sugar soon dissolves, and it is ready for use. The dry sugar keeps indefinitely, but after it is once dissolved it sours if kept more than a day or two in warm weather; it is understood, therefore, that the sugar-water must be kept in a cool place, and if it should at any time become sour, as is easily discovered if it is smelled and tasted, it should be thrown out, and after the bottle has been carefully washed with boiling water, the contents of a fresh package dissolved. A milkman must be found who will serve every day fresh, good milk and cream. By good milk is meant ordinary milk, such as is easily procured in most cities, and not rich Jersey milk; and in the same way the cream should be such as is ordinarily used in tea and coffee, and not the very rich cream of fancy cattle. The reason that ordinary milk and cream are recommended is because they are within the reach of almost every one, and not because they are any better than the rich milk of high-bred stock. If Jersey milk was to be used, it would be necessary to analyze specimens, and then make the necessary calculations as to how to dilute it to obtain the desired relative proportions of the proximate principles. When the child is to be fed, the nurse should mix together two (2) tablespoonfuls of cream, one (1) of milk, two (2) of lime-water, and three (3) of the sugar-water, and then as soon as the mixture has been warmed it may be poured into the bottle and the food is ready for use. If the infant is healthy this quantity will not satisfy it after the first few weeks, and then double the quantity must be prepared for each feeding. Twice as many tablespoonfuls of each of the ingredients must be mixed together, making sixteen tablespoonfuls (about half a pint) in all.

This food should not be given any stronger until the child is eight or nine months old at least, but if the infant is a healthy one, it may take as much of it as it wants, but always of the same strength. A robust infant will often take three pints, or even more, in each twenty-four hours. It is an easy matter for any one to learn how to make the lime-water; and it is advisable to have it made at home, for a great deal is used, and if it is made at home much trouble and expense are saved.

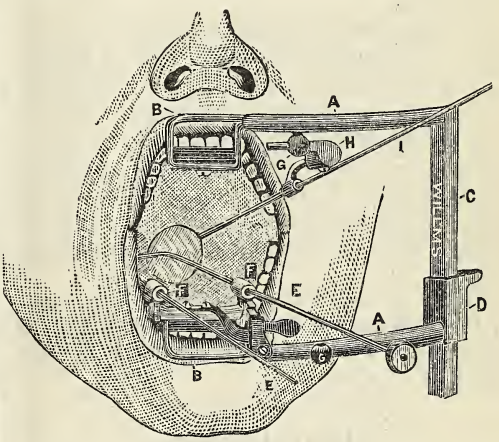
With regard to the propriety of increasing, from week to week, the strength of any artificial food given to infants, there has been some question. Most authorities have advised that the foods should be increased in concentration until finally the infant is given pure cows' milk. The propriety of this procedure, during the earlier months of life at any rate, is very doubtful. Although there is some reason to believe that the quantity of solid ingredients in human milk increases from month to month as lactation goes on, such an opinion should be accepted only with great caution, for it seems likely that if there is any increase in the concentration of the milk after the colostrum has once disappeared, and the nursing process has settled down into its even course, the increase is so slight that it may be disregarded. Analyses show that the milk of a woman whose child is two months old does not differ materially from that of one whose child is twelve or fifteen months old. If, then, nature has made no difference, which our means of analysis will detect, between the milk of a woman who has been nursing two months and one who has nursed twelve, an artificial food which has been found to suit an infant of two months, should be made more concentrated only very gradually, and with careful observation of the effect upon the health of the infant. It is best, therefore, if the infant thrives and grows as it should, not to make any change in the food until after six to nine months of age have been attained.

With regard to the use of condensed milk as a food for young infants, I can only repeat what I said in my former paper, that I cannot believe that any article which has been canned, and kept for weeks or months, or perhaps still longer, can be so good as the same thing when fresh. My analyses show the composition of the dilution of condensed milk commonly used in this city, and they show that the porportion of fat is much too small, and for this reason, partly at least, it fails as a food. Its success is due to the fact that it contains nearly the same proportions of casein and sugar as exist in human milk. Dr. Ellwood Wilson is in the habit of directing that after the first few weeks a small proportion of fresh cream be added to the condensed milk, and this would render it still more nearly what is needed; this practice, which cannot be too much commended, if condensed milk is used, is not, however, at all a common one. Withal, I am unable to believe that condensed can be as good as fresh milk, if properly used. There are many other points of great interest connected with this subject which I should have liked to bring to your attention, but my paper has been already much too long.

A NEW GAG, WITH TONGUE-DEPRESSOR AND MIRROR ATTACHMENT.

BY RUSSELL MURDOCH, M. D., BALTIMORE, MD.

The gag is a counterpart of an eye-speculum described by me in the Transactions of the American Ophthalmological Society for 1883.



It has two blades (AA), with teeth-rests (BB). At the distal end of the upper blade there is, at right angles to it, a rectangular bar (C). Similarly situated on the lower blade a sleeve (D), with square lumen. This sleeve fits closely over and slides on the bar, and to effect this there is a convenient handle projecting from the side of the sleeve.

The teeth of the patient lock the instrument at any desired point, and consequently no set screw nor catch is needed.

The tongue depressor (E) is made of No. 12, Stubb's gauge wire. It is shaped like a long-armed capital letter U. A retaining button is screwed on one arm. When attached to the gag the arms are encircled and slide through the two oscillating sleeves (FF), which ride upon the lower mouth-rest. These, together, maintain the horizontal plane of the depressor.

A cog-wheel, attached to the right-hand sleeve, allows the surgeon to depress its point, but any return movement is prevented by means of a spring pawl.

The laryngoscopic attachment (H) consists of two elbows, united by a universal joint. One has a sleeve which encircles a stem of a mirror (I), and through which it slides and rotates. The other elbow has a short rectangular arm, bevelled at its free end, and this fits in the socket of either of the raised buttons (GG) on the blades of the gag.

The upper button supports the mirror in laryngoscopic, and the lower in rhinoscopic observations.

The chief claims of the gag for professional notice are the automatic character of the fixation by the teeth, and its greater promptness of removal from the mouth than any in use.

An attached tongue-depressor to a gag will, it is thought, commend itself as worthy of frequent trial in many throat operations. A suspended mirror, and also the addition of a palate retractor, suspended by an attachment similar to that of the laryngoscopic mirror to the other button on the gag, will give two free hands and a visible cavity while operating on a post-nasal growth.

NOTE.—These instruments have been made by the well-known firm of Willms & Co., of Baltimore. They can be obtained of them singly or in a set.

Clinical Notes.

A CASE OF MANUAL PERFORATION OF UTERUS AFTER ABORTION AT FOURTH MONTH; SPONTANEOUS RECOVERY.

BY L. E. NEALE, M. D.,

Chief of Clinic and Demonstrator of Obstetrics in University of Maryland.

While cases of ruptured uterus are by no means rare; while attention has been turned almost entirely to such unfortunate result in connection with labor at term, and while of late the tendency has been constantly increasing, with the great advance of abdominal surgery, to resort to the knife in such cases, to perform laparotomy, to secure against subsequent peritoneal trouble and septicæmia, there is another and smaller class of cases, not by any means void of interest, the treatment of which may not be considered so fixed and determined. I allude to rupture of the organ not at or near full term but at an early period of pregnancy. Such a case came under my care in the Obstetric Department of the Baltimore Infirmary this summer, which may be of interest and which illustrates the good results of conservative surgery.

* * * * Annie B., widow, æt. 32 years, of Baltimore, a woman of rather small statue, frail build, much emaciated, weak and anæmic, had had three children and five abortions.

One child, now living, æt. three years, was born at the seventh month. She zealously denies ever having made any attempt to induce abortion. She was married (?) at the age of sixteen, and her menstruation has been irregular ever since. In the summer of '80, when not pregnant (?) she bled for sixteen weeks intermittently, and has always had leucorrhœa and slight pelvic pains. Her last menstruation was during the third week of January, 1884, continuing for one week. Then followed suppressio mensium from supposed pregnancy, till April, 1884, when without any known cause, otherwise than slightly increased household work, she began to bleed, continuing with one to two days intermissions to the time of her abortion, May 15th, 1884, when a well developed fœtus passed from her, with severe hemorrhage, the afterbirth, however, remaining behind.

To remedy both these evils she then took 5ii of ext. ergot f., which failed to produce the placenta, but partly checked the hemorrhage. * * * May 17th, slight chill followed by moderate fever and another shivering. May 19th bleeding ceased entirely.

May 20th got up and went about. Bladder and bowels had been functioning normally all the time, and she had at no time suffered from abdominal pains or distention. May 21st walked to the University Dispensary, where I saw her for the first time.

On passing my index finger through the patulous os externum and cervical canal I felt the placental mass just above the os internum attached to the uterine wall. Patient was sent home to bed and an advanced student entrusted with her treatment. He visited her the same afternoon, and under chloroform removed with his fingers some fragments which I subsequently examined microscopically and found to be placental tissue. During these manipulations the woman

bled considerably, but was dosed with ergot and morphia, and after all hemorrhage had ceased was left for the night on brandy and milk.

Hearing this report on the following morning, I requested that the woman be brought into the hospital, where, upon digital examination I discovered a rent in the uterine walls large enough to admit three fingers; the intestines being plainly felt.

She was then (2ndly) examined by a student; (3rdly) by Dr. Abbott; (4thly) by Dr. Chunn, who demonstrated the diagnosis by passing a 12-inch uterine probe into the abdominal cavity!

At this time the woman presented a most unfavorable appearance: pale, sunken, anxious and haggard features, general emaciation, clammy skin, temperature over 100° F., pulse 120, respiration 28, with constant nausea and vomiting, and hypogastrium exquisitely tender.

Prof. Miltenberger was immediately called; he examined and diagnosed a horizontal rent about 2½ inches long, in the posterior uterine wall, just above the os internum.

Dr. Trimble, (Assistant Resident Physician) then introduced a soft rubber drainage tube, and the woman was put to bed with no other treatment than enemata of ℥ii of milk to ℥i of whiskey every 4 hours, and gr. j Ext. Opii Aq. in suppos. every 2 hours.

Nausea and vomiting (chloroform had been used during the examinations) continued 1–4 times daily up to the evening of May 24th, despite the use of minute (1/10 grs.) calomel powders, crushed ice, &c., &c. The tenderness over the hypogastrium soon passed away. On the second day after admission, the drainage tube came out, the discharge being very slight, sero-sanguinolent and odorless. She soon began to take food by the mouth; the bladder and bowels functioned normally all the time. On the evening of the 24th her temperature was 101¾° F., pulse 123, respiration 21, which was the highest point reached at any time, the usual range being temperature 99°–100°, pulse 90–104. On the morning of June the 3rd I examined the patient carefully, but failed to discover anything more than a perfectly normally involuted puerperal uterus.

This patient was treated in the wards of a general hospital, and, despite all gloomy prognoses, made a most perfect and rapid recovery.

Laparotomy, though suggested, would have been both useless and dangerous, owing to the situation and character of the wound and the condition of the patient.

There was already excellent drainage for whatever fluids or foreign matter might be in the peritoneal cavity, and also for whatever bits of placenta might still be attached to the uterine wall, which could come away with less danger by the lochia than by the curette.

Society Reports.

BALTIMORE ACADEMY OF MEDICINE.

STATED MEETING, HELD MAR. 18TH, 1884.

(*Specially reported for Md. Med. Journal.*)

The Academy was called to order about 9 P. M. by the President, Dr. F. T. Miles.

Case of Acute Miliary Tuberculosis. —*Dr. Chew* reported the following case: A man came to the University Hospital four or five weeks ago. No history could be obtained of his previous symptoms except that he had had diarrhœa for two days; he had none at that time nor subsequently. He had a high temperature, and there was apparently some enlargement of the spleen. No effect was produced upon his temperature by quinine except once, when it was lowered; this may, however, have been accidental. The respiration was 45 to 50 per minute, the alæ nasi working continually. Subcrepitant rales were heard universally over both lungs; there was no dulness anywhere. Acute miliary tuberculosis was diagnosticated, with a hopeless prognosis. On post-mortem the lungs were found filled with miliary tubercles; also the spleen.

In the above case the temperature ranged from 101½° to 105° and even 106°, being usually 104° to 105°; the lowest point was reached after a hypodermatic injection of the muriate of quinine and urea. The pulse ranged from 112 to 125 and even 140 and reached 150 during two or three days. The respiration was from 35 to 55, and on the day of his death rose to 150.

Such cases last from four to six weeks. According to Bartholow, rose-spots add to the difficulty of diagnosis.

The patient was a colored man, and at the beginning was large and well-developed

and without any apparent emaciation.

The tuberculous lungs were exhibited.

Dr. McKew remarked upon the disparity between pulse and respiration, and the variations between morning and evening temperature as being diagnostic. He had seen no antipyretic effect from the use of quinine by any mode; it was moreover objectionable because it produces irritation of the bowels.

The President had recently had an opportunity of testing quinine upon himself, and saw no evidence of antipyretic effect. He laid stress upon the importance of having clinical thermometers corrected.

Complete Dislocation of Astragalus Forward—Successful Reduction.—*Dr. Tiffany* reported the case (which may be found in full in this journal for March 29th, 1884).

The President had seen one case in which reduction had been effected after cutting some of the tissues.

Joint Troubles of Neuritic Origin.—*The President* reported the following: A lady's ill-health began with erysipelas of a lower extremity characterized by pain, fever and delirium. Afterwards she had disease of the elbow-joint, which became very much distorted, with very remarkable bony changes. Both elbows were affected, the left most. On manipulation they yield a grating sensation. For five years this condition has lasted, being accompanied by extreme pain. It is not rheumatic but the result of neuritis, resembling very much a condition observed by Charcot in cases of locomotor ataxy. She was treated with the galvanic current, and is now being treated with the faradic. The deformity is much less than formerly; the bones are returning to a better condition and the enlargement is subsiding; she can sew some and can sleep.

In applying the galvanic battery one pole was placed upon the back of the neck, the other was applied to the arms. Improvement began one to two months after the commencement of treatment.

In these cases there is a peripheral alteration of the trophic and other nerves, for which the galvanic current offers a remarkable means of relief. There are three things to be overcome: 1, pain; 2, paralysis; 3, alteration of bone. The relief of the last condition had not been anticipated in this case.

The patient is bad of hearing and her speech was affected. She has had pains in her lower extremities but no joint troubles there. Iodide of potassium was used at first but was very soon stopped as useless. The nearest approach to the case in literature are those cases reported by Charcot. The patient was exhibited to the Academy.

Persisting Nervous Symptoms Following Delirium Tremens.—*Dr. McKew* referred to the case of a young man who had delirium tremens following a debauch at Christmas. His recovery was very slow, and delusions persisted for some time, with loss of power over his limbs—symptoms which were inexplicable to Dr. M.

A Case of Hysteria (?).—*Dr. McKew* also reported the following case: A young girl, æt. 17, was delicate from childhood. She was a frequent sufferer from diarrhœa and cough. A year ago he had been called to see her on account of a catarrh. A few days later there was dizziness; also tenesmus with white stools. After these symptoms had been relieved she complained of vomiting after food. During the early part of last winter she had some bowel trouble with nausea and vomiting taking place one to two hours after eating. She got over this. In February she began to complain of her eyesight. There was nothing abnormal to be seen about her eyes nor in her urine. Her eyes got better but a headache persisted. She began then to vomit again. There was no nausea nor pain; no loss of color or weight. Three weeks ago she ejected some substance from her stomach which was supposed to be due to her having eaten jam; this has been repeated twice since. Examination of the vomited matter was negative as to blood and bile. There is no epigastric pain or tenderness; no dorsal pain; none on taking food. No matter what she eats the vomiting occurs two to two and a half hours after eating. She is an exceedingly nervous person, but has a good complexion and no anæmia. The ejecta present an appearance as though snuff were mixed with mucus. Her appetite is very good. She takes lime-water and milk. Is very sure there is no fraud in the case, as the mother watches her closely.

Dr. Tiffany suggested deception in a hysterical patient.

Dr. McKew thought this negatived by the fact that the dark matter is not vomited at the beginning of the attack.

Dr. Chew thought no confidence was to be placed in the statements of the mother.

Correspondence.

"PALO-THERAPY."

BALTIMORE, Sept. 2, 1884.

Messrs. Editors Md. Med. Journal:

Having returned from my summer vacation, and taken a look around me, I find the air teeming with Mother Earth, unescorted, *professionally*, however; and as I am a great respecter of the healing virtues of these time-honored elements, I will ask ye permission to claim her acquaintance, and lead her back into the fold.

The use of clay in medicine and surgery ("Palo-therapy" will cover the ground—or how would you like "Remedial Keramics?") finds its best exponent in the practice of Dr. Addinell Hewson, of Philadelphia, an earnest, successful and strictly professional advocate of this agency.

In justice to him, I may state that he has never made any mystery in the matter, nor sought any publicity through irregular channels. The use of his name on various circulars about town is utterly unauthorized. I have a letter from him to Prof. Smith bearing on these very topics.

Through his courtesy I was privileged, last summer, to inspect his methods and material, and also visit a number of private cases progressing favorably under his care.

As this letter is designed simply to guide those who may care to investigate the subject (perhaps new to some) I will state that there is a copy of his original work entitled "Use of Earth in Surgery," in the Medical and Chirurgical Faculty Library.

For the past year I have used various samples of clay, and seen them used quite extensively, with good results. A subsequent paper will contain reports of cases, especially one of keloid which is of interest. Dry powdered clay, or a moist paste of the same, is adapted as an application, wherever *hyperæmia* or *inflammatory action* exists. In recent effusions of lymph or products of inflammation, into loose tissues, bruises, superficial injuries, epithelial cancers, keloid, bad *sprains* of ankle and knee, etc., it is of marked curative value.

For erysipelas, bed-sores, actual and threatened ulcers and open wounds of all kinds, I can recommend it strongly.

The open statement relative to the presence of "inflammatory action" shows the wide range of its applicability. It is rather difficult to find a clay in any abundance immediately around Baltimore suitable for giving best results.

Dr. Hewson prefers a bright *yellow* clay, recently exhumed, free from grit or sand, dried and freshly pulverized.

Any clay which is clean, tenacious and capable of drying readily after application, will prove satisfactory; provided some minor but very essential points are complied with.

To produce absorption, the dressing must be maintained in direct and continuous *contact* with the skin; "the virtue of the earth applications, as shown by experience, being dependent essentially on the complete contact of such a layer of earth in its *dry* state with the diseased part, so as to thoroughly exclude the air from such parts."

The treatment of tumors of the breast and abdomen by clay dressings is an especial development of Dr. H.'s skill. I have seen excellent results from his hands; but am not prepared to speak yet, decidedly, from my own experience.

Trusting that a little light has been thrown on a muddy subject,

I am respectfully,

Dr. EDWARD M. SCHAEFFER,
323 Lexington Street.

RESORCIN IN DISEASES OF THE EAR.—*Dr. C. W. Tangeman*, assistant to the Chair of Ophthalmology in the Ohio Medical College, concludes an article on the above subject as follows:

1. Resorcin is the most efficient remedy that we possess.

2. If employed generally in all cases as they make application, it should be used in a 5 per cent. ointment (24 gr. to ℥ i), or mixed with boracic acid.

3. It causes considerable pain when used pure, and always increases the discharge the first day or two.

4. Many of my cases would have fared better had a mild preparation been used from the beginning, but I did not know the action exactly, consequently had to find the best method by experiment.

6. It seems far better to make one application only when the pure powder is used in an obstinate case, for it is many times sufficient, while when it is used more frequently we cause too much irritation.—*Therapeutic Gazette, Aug.* 15.

Editorial.

The International Collective Investigation of Disease.—In an address delivered before the International Medical Congress, at Copenhagen, Sir William Gull discusses the subject of International Collective Research in an able and forcible manner. The main object of the address is to promote a wider observation and collection of information on medical questions. The main purposes of the International Medical Congresses are fully defined and the widespread influence and value of organized combination and co-operation in medical work by all the working members of our profession are clearly shown. The profession of medicine enforces upon its members the necessity of continued observation and intellectual cultivation, and there is no means by which this cultivation can be so well promoted, in Sir William Gull's opinion, as by meetings like the International Medical Congress. The human intellect in its single and separate operations may, he argues, produce wonderful results, yet the isolated man makes but little progress apart from the aid and co-operation of other minds which have worked and are working in the same direction. Whilst it will always be the privilege of the highest intelligences to clear the boundaries of knowledge and to throw the rays of their genius into the surrounding darkness, all must, he says, admit the great and almost supreme value of the intellectual co-operation of less gifted minds in the simple observation of facts, and especially when the needed facts are scattered over a wide field.

Man is, he says, much less apart in the work of his intellect than he seems to be; "for as we cannot refer the strength of our bodies to any particular food that we have taken, so neither can we trace the thoughts of our minds to the sources whence they may have been fed; and if our social nature has been raised from savagery to civilization by social combinations, it is even more necessary that our intellectual nature should be helped in its growth and nurture by such intercourse and association as are here presented."

The collective investigation of disease, Sir William Gull tells us, was first broached three centuries ago by Francis Bacon in his "Novum Organon," but little has been done in it since. The purpose in view is to enlarge and methodize intellectual co-operation, whereby not only the active but the inactive faculties of observation of the widespread members of our profession may be combined into one or more lines of energy.

Sir William Gull realizes the extreme difficulties of scientific research as conducted by the average practitioner and assumes that the combination of exact record with refined criticism and analysis demands the highest scientific perception with the humble collection of the meanest facts. "It means the development of intellectual combination into many forms of organization which should be not one but *many instruments of research.*" "Such a forecast," he says, "may perhaps lead us to exclaim, 'who is sufficient for these things?' Yet happily the answer is near—time, though short for the individual, is inexhaustible in the race—the intellect is in its infancy—its powers of growth unexhausted, and to these in their evolution there appears to be no limit."

The phenomena which demand our investigation, though complicated and transient, are the result of unchangeable laws, and we may have this encouragement that when any of our work is done, however small and trifling it may seem, it is done and settled for all time. The clearing of a fact in respect of disease will remain an imperishable inheritance of knowledge to those who follow us, so long as there is disease in the world.

Sir William Gull refers to the work of the Collective Investigation Committee of the British Medical Association and then proceeds to advance arguments in favor of an International Committee for the Collective Investigation of Disease. He points out the advantages to be expected from such work as will be conducted by the committee. Every co-operating member, he says, would learn much from the investigations proposed, and that whilst he promoted science, he would no less promote his own intellectual status. He points out the fact that "the family physician or practitioner has a sphere of observation specially favourable to the study of ætiology and the modes of extension of communicable diseases. He has also advantages for pathological study which are not so much afforded to the professor in an university or hospital. It is his privilege to see the earliest beginnings

of disease and to have the opportunity of tracing its evolution and decline, or when so favorable a course does not happen the steps of pathological progress are before him; whereas, at the end of life, when the whole organism crushes downwards into a chaos of pathological forms by the advance of disease, it is often impossible on the *post-mortem* table to say where failure began, and how far it has advanced."

The arguments advanced by Sir William Gull in favor of International Collective Investigation of Disease are clearly stated in the following words: "The establishment of an International Collective Investigation of Disease, appeals to us from every side; personally, as through its influence our energies are stimulated, and our intellectual activity varied; collectively, since science is cosmopolitan, and can only grow well when fed from all sources. It has been objected that the results of collective investigation must, from the nature of the case, be inaccurate, superficial and so far useless; that they are more likely to confirm prejudice than to extend knowledge, and as regards their scientific value science is made up of quite other stuff. Now to this it may be answered that knowledge advances in many ways; not only by the investigations of the gifted workers of science, but by the casual observation of an isolated fact."

Dr. Morris H. Henry on Higher Medical Education.—Dr. Morris H. Henry's speech on this subject, at the late meeting of the American Medical Association, was dramatic in a high degree, as those who heard it will admit; we will grant that it was even eloquent and effective. None approved of its sentiments in favor of a higher educational standard more than we. But with all that it seems to us have been rather a superfluous ebullition of words for which there was no occasion. The resolutions which it was designed to advocate were mere platitudes, without any force of authority and utterly worthless as far as any effect upon medical teaching is concerned. It is not by mere words that the object is to be attained. As a further evidence of the needlessness of such a fiery harangue, the committee having the subject under consideration announced that at the proper time they were prepared to recommend suitable action on the part of the Association.

Furthermore, Dr. Henry is unjust in his wholesale denunciation of the colleges. With three exceptions all are included in the sweep of his denunciation. All are equally corrupting and demoralizing in their influence upon the profession. No allowance is made for any circumstances—no credit given for honest efforts at improvement.

Such harangues ever elicit applause. It savors much of demagoguery to see one taking advantage of a favorable moment to ventilate himself upon what he knows must be a popular side. Such clamorous orators would doubtless be quickly quieted by the offer of a chair in some of the institutions which they abuse with such violence. Dr. Henry's speech seems to us to be commendable neither in point of taste, of justice, nor of necessity.

Second Sanitary Council of Maryland.—Under the auspices of the State Board of Health the Second Sanitary Council of Maryland will be held at Blue Mountain House, Western Maryland Railroad, on the 17th, 18th and 19th of this month. The object of this Council is to awaken an interest in sanitary matters throughout the State with a view of preventing the introduction and spread of epidemic and pestilential diseases. It will be remembered that a meeting of this Council was held in this city last fall, and that it was productive of much good in calling attention to the importance of hygienic subjects. The coming meeting of the Council promises to be of much interest and importance. The Secretary of the State Board of Health has been quite active and also successful in securing a number of interesting addresses and papers from distinguished sanitarians, both at home and abroad. Contributions upon the following subjects are invited: The Adulterations of Food and Medicines; the Pollution of the Water Courses of Maryland; the Relation of the Diseases of Animals to the Human Race; the Sanitary Problems of the Cities and Towns of Maryland; the Relation of the Press to Sanitary Work; the Relation of Teachers to Sanitary Work; the Physical Dangers of Alcoholic Beverages; the Relation of the Clergy to Sanitary Work; the Duty of State and Municipal Governments in Connection with the Public Health; the Disposal of the Dead, etc. Physicians and Sanitarians are

invited to contribute papers on these subjects, and also to notify the Secretary as early as possible, giving the title of their papers.

The place selected for the meeting is one of the most attractive and beautiful in the State, and since reduced rates can be secured on the lines of railroad in the State and at the hotel every one interested in this branch of scientific work should attend the Council.

It is the duty of every physician to take an active interest in diffusing among the people such information as will tend to secure them from the avoidable causes of disease; hence every practitioner in the State should endeavor to promote the purposes of this Council.

Miscellany.

Notes of the Congress.—The word having been passed that visitors at the opening ceremony were to be in full dress, we had scarcely time to don our war-paint to be at the Palais de l'Industrie in the Vesterbrogade at 1 o'clock. The hall is beautifully proportioned and decorated, and upwards of 1200 visitors had assembled when the Royal Family drove up in eight carriages. The scarlet liveries and the outriders made a fine pageant in the glaring sun, and the President, Prof. Panum, might well feel proud when he opened the Congress from the tribune, addressing the Kings and Queens of Denmark and Greece, who were seated in gilded arm-chairs, serene and stately before him. After the President, Sir James Paget spoke, as President of the preceeding Congress, and I do no injustice to his compeers when I say he held his own as the first orator in the medical profession. Virchow followed; and then Pasteur, who received an ovation without parallel. His son is one of the secretaries at the French embassy here; and when I also mention that President Panum addressed the assembly in French, that lively bird *le coq Gaulois* may be excused if he crowed rather loud for a day or two. The speeches over, a short interval was allowed before commencing any business (Sunday, remember). The Royal family graciously utilized the time by chatting with the inner circle of visitors. The King of Denmark very pointedly picked out Virchow for several minutes' conversation, then chatted very jovially with Sir William Mac Cormac, passing on to Volkmann with rather more stateliness. His Majesty seemed to have bethought himself that the hilarious *bonhommie* of a prince of good fellows might almost be too contagious on such a grand occasion. Pasteur certainly seemed to have the monopoly of the conversation and charms of the Queen of Greece; but for an intimate *tete-a-tete* which seemed as if it were to have no ending, commend me to the chat of the Queen of Denmark and Sir James Paget. Her Majesty seemed as if she would not part with the distinguished baronet.—*Lancet Correspondence.*

Corrosive Sublimate and Other Antiseptics in Ophthalmology.—Sattler has recently made some extensive experiments as to the value of different antiseptics, when used in infected animal tissues, and especially in the eye. For this purpose he used silk threads sterilized by heat and then placed in cultures or micrococci from the lachrymal sac of jequirity bacilli. These threads were then dried with care, so as to prevent the access of other substances, and then dipped, with their cultures, into different antiseptic fluids for a longer or shorter time, according to the time which the disinfecting fluids are usually kept in contact with the tissues. Afterwards, the threads were again put in the culture chambers and observed.

His experiments showed that chlorine water by far exceeded all other antiseptics, and rendered every spore incapable of development in one minute. Next in value to chlorine water was a solution of corrosive sublimate, 0.5 to 1 per 1000. Three minutes longer were necessary for solutions of 1 to 5000. Third in the list were resorcin and hydroquinone in 3 per cent. solutions. Very favorable results were also obtained with concentrated watery solutions of salicylic acid, and almost the same results were obtained with 2 or 2.05 per cent. solutions of carbolic acid. Boracic acid was shown to be extremely weak, even in concentrated solutions; thymol (1:1000) was much better in concentrated watery solution. Hydrogen peroxide, iodoform, and absolute alcohol gave also comparatively slight results. When spores of splenic fever were used, chlorine water and corro-

sive sublimate gave favorable, and the other substances unfavorable, results.

Sattler says that in severe corneal ulcer the best antiseptic is the incandescent iron, most conveniently used in the form of the galvano-cautery. Severe hypopyon is then quickly absorbed, and painful ciliary neuralgia disappears in a very short time.—*Centralbl. f. d. med. Wissensch.*, July 19, 1884, *Med. News*, Aug. 23.

Experimental Researches on Chronic Alcoholic Poisoning—*Drs. Dujardin-Beaumetz and Audige* conclude an elaborate article on this subject as follows:

In fine, to complete the detail of experiments which have cost us so much in money, and about three years of careful observation, we observe:

1. That the alcohols, administered in a slow and continuous manner, determine in the hog, at the end of a certain time, anatomical lesions, which consist in congestions and inflammations of the digestive tube, and of the liver, without at the same time attaining to that degree of interstitial hepatitis which is noted in hard drinkers in human kind; in congestion of the pulmonary parenchyma, which may go so far as apoplectic extravasations; in atheromatous degeneration of the large vessels, and especially of the aorta, and finally, in sanguineous effusions into the substance of the muscles, and in the cellular tissue.

2. That these lesions, inappreciable at the end of thirty months in cases where ethyl alcohol was given, and alcohols having other origin than vinous fermentation, but which had been thoroughly rectified, are very conspicuous in subjects to which have been administered crude spirits, whether from beets, grain or potatoes.

3. That preparations of absinthe are especially baneful in their effects on the nervous system.—*Therapeutic Gazette*, Aug. 15th.

Prof. Brouardel.—This distinguished French physician is thus described by Dr. Edward Warren in a letter to *Gaillard's Medical Journal:*

Though scarcely forty years of age—for he graduated in 1865—he is a member of the Academy of Medicine, a Professor in the Medical College of Paris, an officer of the Legion of Honor, and the President of the Committee of Public Hygiene, positions which he has gained neither by favor nor intrigue, but by the elevation of his character, the profundity of his knowledge, and the force of his indomitable energy. The fact of his selection as the successor of Tardieu and Wurtz is in itself a tribute to his genius of greater significance than language can convey, and it will stand as an imperishable record of his worth while their great names are remembered. Short, and not imposing in stature, with a round and symmetrical head covered with a scanty crop of auburn hair, soft blue eyes, and a smiling countenance, his appearance does not convey an idea of the physical and intellectual vigor which really appertains to him. In conversation, also, he is singularly placid for a Frenchman, indulging in no accentuation or grimaces or gestures, while words of singular beauty and pertinency flow in an unbroken and exhaustless stream from his lips. As a *speaker* he does not specially excel, as he is somewhat prolix, and disposed to follow thoughts into their minute ramifications; but as a *talker* he is one of the best that I have ever heard, being fluent, ornate, forcible and impressive to a degree that charms and convinces irresistibly. There is one impression, however, that he never fails to make—alike in public positions and in private relations—from every line of his face and movement of his frame and tone of his voice, the word *gentleman* is expressed with a force and significance which the most obtuse cannot fail to hear and to appreciate. There is no guile or deceit or intrigue in his nature, but he is loyalty, honesty and candor personified, and much of his success in life is due to the fact that these attributes are written so legibly upon him as to preclude the possibility of the slightest mistake in reading or interpreting them.

Nephrectomy after Vaginal Hysterectomy.—M. Jules Bœckel, of Strasbourg, has recently read before the Societé de Chirurgie of Paris, some notes on the total removal of a cancerous uterus by the vaginal orifice. The patient was forty years of age. The cancer was in its earliest stage. The vagina was free from malignant growth. M. Bœckel performed the operation of hysterectomy on October 26, 1882. He lowered the uterus by means of Museux's forceps, then incised the posterior

cul-de-sac of the vagina, and afterwards dissected out the tissues between the uterus and the bladder. A double ligature was then passed around the broad ligaments, and they were divided without the slightest hemorrhage. The intestines protruded into the vagina, but were easily replaced; removal of a gland caused slight hemorrhage, which was arrested by means of two hemostatic forceps. Sutures were unnecessary, either vaginal or peritoneal, nor was a drainage tube required. The vagina was disinfected with carbolic solution, and plugged with cotton wool and iodoform. The following morning the temperature was 100°. The forceps were removed. The general condition of the patient was satisfactory, but there was an escape of urine into the vagina. A urinary fistula was discovered; it was supposed to result from the pressure of the forceps on the ureter. Nephrectomy was performed, and one kidney was easily removed; it was perfectly healthy. Recovery was rapid. The patient left the hospital six months after the first operation, and remained healthy three months, with the exception of polyuria. Towards the fourth month the abdominal glands became cancerous, and the patient died the seventh month. At the necropsy parenchymatous nephritis was observed in the remaining kidney, and there was cancerous degeneration of the abdominal glands.—*Brit. Med. Journal.*

Treatment of Sycosis.—The *Wiener Med. Blätter* of April 24, contains an article by Dr. Von Hebra, on a new treatment of sycosis. Being dissatisfied with the customary maceration of the skin by means of diachylon ointment, he sought, some years ago, to discover some means by which this might be prevented. He now employs almost invariably the following plan of treatment. Any hair which may be left on the parts affected is cut as close as possible with scissors, and some emollient ointment applied for twenty-four hours, care being taken that it does not contain lead, which would form a compound with the sulphur to be subsequently employed. The crusts being by this time broken down, the part is shaved, by which means the tops of the pustules are removed and their contents evacuated. The whole of the affected surface of the face is then covered with a modification of Wilkinson's ointment, included in the Hungarian pharmacopœia under the name of "Unguentum contra scabiem," which is covered with a piece of flannel, and secured by a calico bandage. This dressing is changed every twenty-four hours, when the contents of each pustule are pressed out, and the hair which is usually found in the centre removed. When all the pustules have disappeared, the redness and scurf are removed by the application of an ointment containing one part of zinc to three parts of vaseline, and the cure is complete, in some cases within a few days. Several cases are cited in illustration.—*London Medical Record*, July, 1884.

An Improved Method of Amputating the Penis.—Surgeon-Major T. J. McGann gives the outlines of four cases of amputation of the penis by the following method: The patient is placed on the table in the lithotomy position, and chloroform having been given, an assistant, holding the scrotum in both hands, draws it forwards, keeping the raphe of the scrotum and perineum in the same line. An incision of two and a half or three inches in length is made behind the scrotum in the median line, with its centre over the bulb; the corpus spongiosum having been completely exposed, and a little fine dissection made so as to separate it laterally from the corpus cavernosum, the scrotum is allowed to drop and is drawn slightly backwards, and the penis having been seized, is pulled forward and removed by a single sweep of the knife close under the pubis. The few bleeding vessels having been twisted or tied, the scrotum is again drawn forwards as before, when the cut surface of the corpus spongiosum presents itself through the posterior incision, and this being separated from the corpus cavernosum, is turned down into the perineum, and left hanging out there half an inch beyond the level of the skin. The front and back incisions are then united by a few points of suture, and the protruding spongy body slit on the lower or posterior aspect, and the edges united to the perineal skin on either side by two points of suture. The operation is completed. On the completion of the operation there is but a small wound visible in front, and the scrotum, which is practically intact, has to be raised to render the posterior incision visible.—*Indian Med. Gazette.*

Disease Caused by Water from a Graveyard.—The following cases present some points I think worthy of serious consideration: H., age thirteen, female, of previous good health, while at work in a field on October 1, 1883, just before taking her dinner drank water from a branch which had its origin from the side of a hill that had long been used as a burying-ground. The place at which she drank the water was about one hundred and fifty yards from the source of the branch. About an hour after she had taken the water she complained of being sick, suffered pain in head and very soon began to vomit, and continued until midnight, when a diarrhœa set up, from which she suffered greatly, complaining of aching all over, which continued for three days, when I was sent for to see her.

I found her with pulse 112, temperature 103° F., suffering intense pain in left hip and leg, tenderness on pressure over the sciatic nerve on same side; some swelling of the hip. I gave the patient a hypodermic injection of morphine, which gave some relief. The morphine had to be continued at intervals to produce rest.

On the third day after I saw her, her mother called my attention to a swelling of the labium majus of the left side. This very soon resulted in a large abscess which discharged profusely. A few days after this she complained of pain in the knee, wrist and clavicular articulations. These showed very little sign of inflammation at first, but in a few days suppurated. The parotid glands also suppurated. Patient died on the eighteenth day. The temperature and pulse varied very little from what they were when I first saw her. She was given quinine and iodine, and was kept on as nutritious a diet as could be had, consisting of beef, eggs, etc.

A sister who drank of the water at the same time and place was taken sick in the same manner, the abscess being on the scalp. This patient recovered. A year previous to this time an older sister, after drinking at this same place, was taken sick in a few hours and had a long and severe spell of typhoid fever; she had no abscesses as did the others.

The owner of the land through which this branch flows, informs me that whenever he has permitted his stock to pasture in this field they lose their appetite, fail to eat and very soon get poor. He, knowing the bad effects of this water on his stock, had cautioned his children against drinking it.—*Dr. L. G. Hardman, in Atlanta Med. and Surgical Journal.—Louisville Med. News.*

Inebriety following Injuries to Head and Body.—*Dr. T. D. Crothers*, in a study of this sequence (*Med. News*, August 23) says:

The following conclusions may be accepted as representing the facts so far established on this subject:

1. Inebriety takes its origin directly from traumatism, particularly head injuries, in a certain percentage of cases.

2. Such cases are prominent in the sudden outburst of the drink-craving, its precipitate character and intensity passing into chronic conditions at once.

3. Complex psychical and physical phenomena, pointing to a general profound state of degeneration of the brain and nerve-centres, are present in nearly all cases.

4. The progress of these cases is generally uniform and along a certain definite line, with but few changes or variations.

5. In the history, heredity, moderate drinking, and habits of irregularity, are common factors preparing the way for the final developing of inebriety, growing out of the injury to the system.

6. The prognosis is always grave and the treatment of little use, unless it is adapted to each case and extends over a sufficiently long time to warrant a full restoration.

7. The pathology and psychology are unknown, but practically the surgeon should remember that a certain number of his cases who inherit some inebriate or insane neurosis, or are moderate users of spirits, are likely to develop inebriety from the slightest causes. Hence alcohol should be withheld as a medicine at this time.

Hippocrates and His Practice.—*Dr. Thomas S. Sozinskey* speaks thus of the practice of Hippocrates (*Med. and Surg. Reporter*, August 23d): Of the treatment of open sores, he says: "In these cases no part is to be exposed to the air." Dressings of "wine and oil" and "pitched cerate," are directed to be used.

Again, in treating fractures, in connec-

tion with certain splints, he advises that "a soft, consistent, and clean cerate should be rubbed into the folds of the bandage." And he says: "If you see that the bones are properly adjusted by the first dressing, and that there is no troublesome pruritus in the part, nor any reason to suspect ulceration, you may allow the arm to remain bandaged in the splints until after the lapse of more than twenty days."

Still again, in regard to the reduction of a dislocation at the hip-joint, he says: "In some, the thigh is reduced with no preparation, with slight extension, directed by the hands and with slight movement; and in some reduction is effected by bending the limb at the joint and making rotation."

Here we have the practical side of the germ theory of disease, the permanent dressing of fractures and the reduction of dislocations by manipulation.

The Essentials for the Safe Administration of Ether.—Dr. David W. Cheever in an article on the administration of ether in the *Boston Med. and Surg. Jour.* gives in conclusion the following essentials for its safe use:

An empty stomach.

A loose neck.

A free abdomen; no corsets or skirt bands.

Removal of artificial teeth.

An easy, semi-recumbent position.

A sponge wrapped in towels for the ether.

A gag, and forceps for the tongue.

When stertor occurs, the patient should be tipped forward, the cheek opened with two fingers, the tongue drawn out, the fauces swabbed. To *insure* safety, the surgeon should hear every respiration of the patient.

Anæsthesia from sulphuric ether is of two forms:

1. Primary anæsthesia, which is a mo ment of confusion coming on after a very few inspirations. At this moment a felon can be opened without pain, and the patient wake at once.

2. Comatose anæsthesia, for prolonged operations. Ether *may* be given almost indefinitely. To relieve the hopeless agony of tetanus, I have had it administered for twenty-four hours.

If you would avoid asphyxia, nausea, and headache, and be *safe*, use only the best and the purest anhydrous sulphuric ether.

Fat Embolism.—In the light, then, of these and numerous similar cases, and of careful experiments and pathological investigations, we are justified in formulating the following conclusions:

1. Fat embolism in varying degrees of severity is not an uncommon complication of surgical accidents and operations.

2. It may be so mild as to be lost sight of in the general condition of shock, or, perhaps, more properly speaking, it is one factor of a condition of prolonged shock.

3. Our knowledge of the subject will be greatly increased when we appreciate the possibilities of its occurrence and observe our cases more closely, watching for the appearance of fat in the urine, of slight dyspnœa, etc.

4. When prostration and loss of blood have been great, a moderate amount of embolic disturbance of this kind may serve to turn the scales against a patient who would have otherwise recovered.

5. By a proper understanding of this subject certain deaths may be explained which otherwise seem inexplicable.

6. Treatment can only be symptomatic, but may accomplish something.

7. Autopsies should be so conducted as to reveal this condition when present.—*Dr. Roswell Park, N. Y. Medical Journal, Aug.* 16.

Blindness from Ophthalmia Neonatorum.—At its last meeting the Ophthalmological Society dealt with a subject of very great importance. It will be remembered that a few months back a committee was appointed to inquire into the prevalence of blindness resulting from a preventable malady—ophthalmia neonatorum. In answer to a very large number of inquiries from private persons, ophthalmic and lying-in hospitals, and from institutions for the blind, the committee has received twenty-three statistical replies, only four of which are considered to be sufficiently explicit and trustworthy. In the Belfast Deaf, Dumb, and Blind Institution, 30 per cent. of the persons concerned owe their blindness to ophthalmia neonatorum; the London Society for Teaching the Blind to Read gives about the same percentage; the Blind School at York about 40 per cent.; and that at Hull about 35 per cent. These numbers substantially agree with those of foreign investigators, notably those of Reinhard,

who, on investigation of twenty-two German blind asylums, found 658 blind from this disease among a total of 2,165, equal to 30.5 per cent.—*Lancet.*

Disinfecting Toulon.—Every means of disinfection at Toulon, says the *British Medical Journal*, was adopted. The city was watered with a solution of carbolic acid and chloride of lime. Those who died from cholera were buried at a great depth under ground. Railway travelers were sprinkled with carbolic acid solution. The soldiery were encamped outside the town. The sick sailors were put on board the Entreprenaule to be examined; the cholera patients were removed to the St. Maudrier Hospital, which was reserved for them. The crews were placed on vessels at anchor outside the port. The Ministers of War and the Marine gave orders to the authorities of arsenals to deliver to the civil authorities all the material for camping out that they required. MM. Brouardel and Proust arrived on Tuesday, June 24, at Toulon, with a Ministerial decree to effect whatever measures they judged necessary for the public safety; to ordain the evacuation of entire districts, and of the city itself if requisite. Dr. Rochaud left Paris for Toulon on Tuesday evening, also MM. Strauss and Roux, in order to continue their scientific researches. They were also commissioned to make a strict inquiry into the origin of the outbreak.

Ruptured Perineum Treated with One Stitch.—We notice in the July number of the *American Journal of Obstetrics* that Dr. H. J. Lee, of Cleveland, O., reports three cases of lacerated perineum treated by a single suture, as recommended originally by Dr. Alloway of this city. He says the ease with which the operation is performed and the perfect results given by Dr. Alloway are sufficient reasons to warrant a further trial, and, if found to result as perfectly in other hands, it surely should succeed the more complicated operation which appears so formidable to both physician and patient. Dr. Lee does not agree entirely with the originator of the operation on one point. Thus, while Dr. Alloway thinks that the suture may be passed "at any point between the beginning and the end of the laceration," he contends that the suture should always be passed "on a level with the beginning of the laceration." He compliments Dr. Alloway highly on his conception of the operation, and wonders that, being so simple, it was not thought of before.—*Canada Med. and Surg. Journal.*

A Laryngeal Neurosis.—A form of laryngeal neurosis, which is probably not widely known, was treated of some months ago by Dr. McBride, and still more recently by Dr. Russell in the *Birmingham Med. Review.* Charcot has recorded the notes of four cases, and he regards the affection as a laryngeal vertigo analogous to Menière's disease, the afferent path being the superior laryngeal nerve. The main feature of the attack is a sudden falling to the ground, immediately preceded by a short, dry cough, and sometimes by spasmodic breathing; unconciousness has been more frequently observed than not. Subjectively the patient is almost always annoyed by a tickling or burning sensation in the larynx. Some local hyperæmia, or a "granular" condition of the throat, is nearly always present, and marked benefit has been derived from local medication and the internal administration of bromide.—*Lancet*, Aug. 16.

Removal of Laryngeal Growths.—*Dr. W. C. Jarvis*, in an article entitled "A new method for the Removal of Laryngeal Growths," concludes (*New York Medical Journal*, Aug. 23):

1. Trioxide of chromium, or so-called chromic acid, is valuable as an escharotic on account of its self-limiting action.
2. It affords a safe and reliable means for the removal of large and small soft laryngeal growths.
3. It not only removes the growth, but also prevents its recurrence.
4. It is best applied fused upon a probe.
5. Its application is facilitated by an instrument devised to act as a guide, protector, and regulator.
6. Its use in the larynx is not necessarily attended with pain or spasm.
7. It offers a substitute for tracheotomy and thyrotomy in certain cases where these measures have been adjudged necessary.

Treatment of Sloughing in Hernia.—The *Deutsche Med. Wochenschrift* quotes a lecture delivered by Dr. Riedel, of Aix-la-Chapelle, on the treatment of gangren-

ous hernia. He recommends that the gangrenous portion of intestine should be withdrawn from the sac, attached to the thigh by a few stitches, and then drained of its contents by a tube passed into the central portion of the bowel. After an interval, not exceeding twenty-four hours, during which the intestine should be kept moistened with naphthaline, resection of the gangrenous portion is proceeded with, without chloroform, and the external wound is carefully closed. The first part of the operation can be undertaken by any surgeon, and the patient thereby brought into a condition in which he may be safely transported within reach of more skilful aid.—*London Medical Record.*

Esmarch's Painless Caustic.—

Arsenious Acid.....1 part.
Sulphate of Morphine.....1 "
Calomel.....8 "
Polarized Gum Arabic.....48 "

When used for the removal of warts, tumors, etc., the surface skin should be removed with a knife or blister, and the powder sprinkled on the denuded surface daily.—*St. Louis Druggist.*

Improvement on Fehling's Sugar Test. As is well known, cuprous oxide separates but slowly from solutions of glucose, especially from weak ones, and in order to determine the end of the titration, filtering has to be resorted to, which is very difficult to effect properly even when a double filter is used.

F. Meyer avoids all filtering, and at the same time hastens the precipitation of cuprous oxide by adding to the boiling liquid, towards the end of the filtration, a few drops of a solution of zinc chloride. The hydrate of zinc oxide formed causes a quick precipitation of the cuprous oxide, and the supernatant, quite clear liquid readily admits of being tested in the usual way with potassium ferrocyanide or copper sulphate. In case the zinc chloride added should have used up the caustic soda of the Fehling's solution, a few drops of a solution of caustic soda must be added.—*Pharm. Z. f. Russl., Chem. and Drug.*

The Treatment of Suppurating Buboes. The London correspondent of the Louisville *Medical News* advocates the following method of treating suppurating buboes: As soon as fluctuation is detected the buboes are widely incised and emptied, and syringed with carbolic or corrosive sublimate solution; after bleeding has ceased iodoform is dusted on. The wound is then filled with salicylic wadding, a pad of this or of tow placed over it, this covered by oiled paper, and the whole fastened by a spica bandage. Unless the discharge is profuse, this dressing may remain untouched for eight or ten days. One operator, who has used this method in one hundred and fourteen cases, found that the average time of healing was twenty-three days, while the time required in twelve cases without this dressing was fifty-three days.

Precautions Against Cholera.—The slighest digestive trouble may be the prelude to an attack of cholera. It should not be neglected, and a physician should be at once called. An attack may be prevented or arrested by a rapid treatment. The vomit and stools are the most frequent sources of propagation; they should therefore be quickly disinfected and removed from the house. These matters are not much less dangerous in mild cases than in severe ones. The preferable disinfectants are sulphate of copper, chloride of lime, and chloride of zinc. Carbolic acid and sulphate of iron are insufficient. The copper sulphate should be kept in solution. Fumigation with sulphur is strongly recommended for clothing, rooms, etc.—*From Report of Committee on Public Hygiene, Paris.—Louisville Med. News.*

The Treatment of Cholera in France.—According to the correspondent of the *London Times*, the treatment of cholera at Toulon and Marseilles has been about as ollows:

In the first stage, twenty drops of laudanum are given with three grammes of ether, and ice in the mouth, to stop the vomiting. In the second stage, from ten to fifteen grammes of acetate of ammonia, the same quantity of alcohol, and injections of morphia, are given. If the patient has embarrassed breathing, oxygen is inhaled and the limbs are rubbed with turpentine; and the *New York Med. Record* facetiously adds that "the third stage is the coffin."—*Med. and Surg. Reporter.*

Dr. Robert Koch.—A German illustra-

ted periodical, called *Gartenlaube*, gives an interesting sketch of this physician, from which it appears that he is 41 years old, and a native of the Hartz Mountain. He obtained his M. D. degree in 1866. The next six years he spent in out-of-the-way hospitals. In 1872 he received an appointment at Wollstein. His first distinction was obtained in the artificial dyeing of miscroscopic organisms. His career since 1879 is well known, his last honor being the appointment to the Professorship of Hygiene in Berlin. He is described as a modest and quiet scholar.

Treatment of Hemorrhoids by Carbolic Injections.—*J. R. Kinney, M. D.*, concludes an article in the *Therapeutic Gazette* of August 15th as follows: During the past two and a half years I have used the hypodermic treatment in over sixty cases of hemorrhoids, and without a single serious accident; and I repeat, that in cases proper for this method of treatment, proper care being used, no other method of treatment can show better results, nor as good, as to length of time required in effecting a radical cure, amount of pain inflicted, or percentage of serious results.

Dental Education in Berlin.—Fresh advantages are now to be given to the study of dentistry at the University of Berlin. A large building has been given up as the Royal University Clinical Hospital for Diseases of the Teeth and Mouth, under the management of Professor F. Busch, assisted by Dr. Laver and Dr. Klingelhofer. It will be opened next term. A special dental school is also to be opened in the winter term at the University of Leipzic, under the management of Prof. Dr. Hesse.—*Med. and Surg. Rep.*

Obituary Notices.

Dr. Grafton Tyler, one of the best known and most popular of the older physicians practicing in the District of Columbia, died at his residence, in Washington, last week. Dr. Tyler had been a resident of the District for some forty years, and during a long, active and laborious professional career had occupied some of the highest positions of trust within the gift of the people and profession of the District. He was a gentleman of remarkably agreeable and pleasant manners, and made numerous friends among those who came in contact with him. He was a man of pure and elevated character, and was justly esteemed by the people among whom he lived, not only for his professional skill, but as well for his high moral, social and intellectual gifts.

Dr. Riggin Buckler, a well-known and highly-esteemed physician, residing in this city, died at his summer cottage, at Narragansett Pier, on August 31st, after a lingering and painful illness. Dr. Buckler was a son of Dr. John Buckler, one of the most influential and successful of the former practitioners of this city. He was born in this city in November, 1831, and after receiving a literary education at Harvard and his medical education at the University of Maryland, he spent several years abroad in the schools of Europe. Upon his return to this country he entered into practice with his father, and soon became established in a large and influential business, which he held up to the time of his illness. As a practitioner Dr. Buckler was very popular with the public, and it is said by those who knew him that his attainments were of a high order. He seldom contributed anything to the literature of his profession, and for this reason was not widely known in medical circles. He preferred the unobtrusive, but earnest labor of the general practitioner, and passed his life in attending to the demands of a large and lucrative professional patronage. Dr. Buckler was a gentleman of a kind and sincere nature, and was greatly esteemed by those who knew him well for his many excellent traits of character. His demise will be regretted by a wide circle of patients and acquaintances in this city.

Medical Items.

Sir Erasmus Wilson's great wealth is said to have been acquired principally through fortunate investments in gas and other London stock.=Drs. A. Jacobi and N. S. Davis were appointed at Copenhagen as the American representatives on the International Collective Investigation of Disease Committee.=An Italian Society of Dermatology and Syphilography will be formed at

Turin, Sept. 10–12.=According to Prof. Hoppe-Seyler, the future of the science of medicine belongs with certainty to chemistry.=According to Surgeon-Major Curran, the brook Kedron, of Palestine, which had nearly dried up, has recently, for the first time for centuries, flowed in a copious torrent, evidently in consequence of the numerous enclosures of mulberry and olive groves made within the last few years by the Greek Convent.=With reference to cholera, Virchow is said to be a contagionist, Pettenkofer a localist, i. e., he believes that a specific local condition is necessary to its development.=Over 500 members attended the recent meeting of the British Medical Association.=Dr. Grafton Tyler, one of the oldest and most respected physicians of the District of Columbia, died at his residence, in Georgetown, on the 26th ult., æt. 73. He had been ill for a long time. He was a native of Prince George's county, Md.=Dr. John Basset Chapman, late of the Willard Asylum, N. Y., has been elected Superintendent of the Pennsylvania Hospital for the Insane, to succeed Dr. Thomas Kirkbride, lately deceased.=According to Cheyne's Surgery, Mr. Lister has gone back to carbolic acid.=Dr. Thomas L. Shearer, M. B., C. M., Edin., of Baltimore, contributes an article to the *Lancet*, of the 9th ult., on "A New Method of Treating Sprains," the method consisting of the application of ordinary clay mixed with water. This is spread on muslin and applied around the joint, which is then to be lightly enveloped with a rubber bandage.=A chemical society has recently been organized in Washington, D. C. There are few cities where such a society can have so many active workers. as a large number of chemists are employed in the various bureaus of the Government service.=The Emperor of Austria has just conferred upon Hofrath Dr. Carl Langer, Professor of Anatomy in the University of Vienna, the *Ritterkreuz* of the Order of Leopold. This high distinction, in acknowledgment of the merits of this learned savant, indefatigable teacher, and able referee of the Minister of Public Instruction, has given great satisfaction in professional circles.=The Mississippi Valley Medical Society will meet in the City of Springfield, Ill., September 23, 24, 25 and 26, 1884. Reduced rates of fare may be secured over all through lines.=Excluding grounds of humanity, a medical man is not bound to attend every case to which he is summoned, even where a fee is tendered.—*Lancet*.=The sulpho-carbolate of sodium, in thirty grain doses given after meals, is recommended in flatulent dyspepsia. Also in ten grain doses for nausea and vomiting, particularly in pregnancy.=An amendment has been proposed to the British Medical Act Amendment Bill, to the effect that two physicians of over twenty years' standing be made life peers, and act as lord justices of appeal in medico-legal trials.

Changes in the Stations and Duties of Officers Serving in the Medical Department U. S. Army, from Aug. 26, 1884, to September 1, 1884:

Bartholf, J. H., Captain and Assistant Surgeon, relieved from duty in Department of the Columbia and to report in person to Commanding General Department of Texas for assignment to duty.

McCaw, Walter D., appointed Assistant Surgeon with rank of First Lieutenant, to date from August 20, 1884.

Finley, J. A., Captain and Assistant Surgeon. The leave of absence granted him in S. O. 91, c. s., Department of Texas, extended two months.

Lippincott, Henry, promoted Major and Surgeon, to rank from Aug. 17th, 1884, vice Woodward, deceased.

Head, John F., Colonel and Surgeon, granted leave of absence for four months.

Taylor, M. E., Captain and Assistant Surgeon, granted leave of absence for four months, to take effect on arrival of a medical officer at David's Island, N. Y., to replace him.

Woodhull, A. A., Major and Surgeon, detailed as member of Medical Examining Board at U. S. Military Academy, West Point, N. Y., vice Captain R. H. White, relieved. Upon adjournment of the Board to return to his proper station.

Gibson, R. J., First Lieutenent and Assistant Surgeon, relieved from duty in Department of the Missouri and assigned to Department of California for duty.

Dietz, Wm. D., First Lieutenant and Assistant Surgeon, relieved from duty at the Military Academy, West Point, N. Y., and ordered to the Department of the Missouri for duty.

Clinical Lecture.

Vaginitis in a Small Child; Pharyngitis; Mumps; Granular Erosion of Cervix; Vaginitis with Complications; Retroversion of Uterus.

A Clinical Lecture delivered at the University Hospital, Baltimore,

BY WM. P. CHUNN, M. D.,

Assistant to the Chair of Diseases of Women and Children in the University of Maryland, Assistant Surgeon to the Woman's Hospital of Maryland.

Case No. 1.—*Gentlemen:* To-day I have several cases of interest to show you, and among them is this little girl. She is 7 years of age, and the mother says has been complaining some weeks. Her symptoms commenced with itching and burning about the anus and vulva, accompanied by white discharge and burning during micturition. These symptoms induce us to examine the parts, and so we place the patient on the table. Upon inspection you can see that the vulva is red and inflamed, and that as the labia are pulled apart the entrance to the vagina and even the mucous membrane of the vagina itself is red and discharging. Just between the posterior commissure of the vulva is an excoriated mass, which is most probably a syphilitic condyloma. Although the mother gives no history of symptoms of syphilis, still the child may inherit it through the father, or it is possible it may have contracted the disease in some other way. The girl herself seems healthy with the exception of slight irregularity in the contour of her teeth, and there are no lesions about her.

However that may be, here is vulvitis and vaginitis in a girl only 7 years of age, and from want of further evidence I am inclined to think the trouble originated in the following way. The syphilitic growth appeared first, and by friction with the clothes and want of cleanliness soon became eroded and began to discharge. Some of this purulent discharge was conveyed to the vulva and thence to the vagina, thus setting up the inflammation you now see, and which is the cause of the trouble. Vaginitis in little girls, although uncommon, may occur from a strumous habit, or sometimes is caused by ascarides in the rectum crawling into the vagina, or again from irritating diarrhœal discharges coming from the bowels. I have seen it twice in children under 8 years of age arising from impure sexual relations. The treatment in this case is apparent: First of all cleanliness; wash the part frequently; change the linen often. Also, while the inflammation runs high, use mild astringents, such as glycerite of tannin; rest in bed, keeping the bowels regular. If the affection becomes subacute or chronic, a solution of nitrate of silver, gr. xl to the ounce, is as good as anything I am acquainted with. As for the specific growth, the cause of the trouble, we may give the "House specific," a teaspoonful three times a day, representing three grs. of the iodide of potash, and about $\frac{1}{32}$ of a grain of bichloride of mercury. If the specific growth does not disappear, we may remove it by caustics or the actual cautery. If nothing happens, the same patient will be exhibited again next Thursday.

Case No. 2.—The next child we have for examination is a girl 8 years of age, who complains of croupy cough. She says she has been sick about a year, but that the cough only gets very troublesome when she catches fresh cold or with a sudden change in the weather. She has no fever or night sweats, eats well, and is not restless at night. Here we must examine the throat and lungs. On looking into the pharynx, the tongue being depressed, we see cause enough for the symptoms complained of, viz: a decided pharyngitis. This inflammation causes a flow of mucus from the upper part of the pharynx down towards the larynx and epiglottis, and acting as a foreign body causes the distressing cough you hear. The vesicular murmur over the front of the chest is normal, but upon placing my ear at the base of the lungs and behind on each side and causing the patient to respire deeply, I hear dry, sonorous rales, which are so apparent that I will get two or three of the gentlemen to auscultate for themselves. These abnormal sounds are caused by the air passing through the middle-sized tubes where the caliber of the tubes has been narrowed by inflammatory products thrown out by bronchitis. The diagnosis of bronchitis here is easy. The rales being bilateral and the percussion note normal we can say certainly what the trouble is. The rales were not heard at the apex of the lungs, because at that part of the chest there is not much lung substance present, the great volume of the lung tissue

being at the side and back and lower down. The bronchitis itself needs no treatment beyond nourishing food and good hygiene, but the pharyngitis is of more importance. We will therefore order a simple gargle, such as ℞. Alum. ʒss, Acid. Carbol. gr. vi, Aquæ Calcis ʒiij. Sig. Use as a gargle three or four times a day. This child will be kept under observation, and a report made at the proper time.

Case No. 3.—The patient here presents himself complaining in the following manner: About 7 or 8 days ago he was taken with a fever, accompanied by pain in swallowing and a symmetrical swelling on each side of his ears. There seems to be no other symptom of importance to speak of, the appetite now being good and the evacuations regular. This boy is suffering from a disease that comes to most children sooner or later, viz: Parotiditis or mumps. The diagnosis is made by the appearance of the face, the position of the enlargement on each side, and the regularity of the swelling. Both parotid glands are swollen and enlarged, and to a certain extent so are the sublingual glands. You will not confound mumps with enlarged lymphatics, as they are irregular and hard to the touch. This is a specific contagious disease and runs its course in about 6 or 7 days. This being the eighth day with this boy, you can see that the swelling is already diminished. Treatment here is without avail, unless there are complications. In a small majority of cases metastasis occurs to the brain, and at times swelling and inflammation of the testicle in the male, and in the female soreness in the mammary glands and in the ovaries may be present during the course of this affection. I merely mention this complication so that you will not be at a loss in case such symptoms occur.

Case No. 4.—This case is one of interest also, and I will proceed to obtain her history. She says she is 24 years old, the mother of one child, with no miscarriages. For the past few months she has been complaining of menorrhagia and metrorrhagia with severe pain in left inguinal region. There is pain in small of back and at times dyspareunia is also present. In addition there is a copious leucorrhœal discharge, which is very weakening. These signs and symptoms warrant a vaginal examination in any woman, provided they are severe enough to cause ill health. The woman being now placed on the table in the dorsal position, and two fingers (the middle and index) of my left hand being introduced well up into the vagina, I can distinguish the cervix; and by bimanual palpation find the body of the uterus somewhat anteverted and somewhat enlarged. The ovaries can not be felt nor can any other abnormal condition be discovered by the touch. So far then we have been unable to account directly by the touch alone for the cause of hemorrhages. Let us now see if the speculum will aid us. In using a bivalve speculum I always introduce the index finger of my left hand and get the exact position of the cervix beforehand, then push the closed instrument in exactly the same direction until the cervix is reached, when expanding the instrument, the cervix comes into view with the help of a tenaculum. If the speculum be introduced without the previous digital examination it will most likely shoot wide of the mark, and entering either the ant. or post. cul de sac, the vaginal walls alone will be exposed to view Here,now,by the aid of vision we see and discover what was concealed from the sense of touch, viz., a bad granular erosion which bleeds from the touch. We see here the value of the speculum, and yet not many years ago this very instrument was said to be invented only to gratify an "impertinent and lascivious curiosity." The erosion here is due to endometritis higher up, and is produced by the parts being bathed in the descending leucorrhœal discharge. The enlargement is due to the engorged condition of the uterus depending upon areolar hyperplasia. Many of the symptoms here can be relieved, such as the bleeding, for instance. I now make an application of Churchhill's solution of iodine, and afterwards introduce glycerole cotton. This treatment should be continued at intervals of 2 or 3 days and hot water injections ordered. It is also important in all these cases to look after the general health of the patient.

Case No. 5.—Here is a woman who comes to the clinic for treatment, and as much as she hates the incidental exposure, she is willing to go through with it for the benefit she will receive. The patient is 20 years of age, unmarried, and has had no children or miscarriages. Some two weeks ago she began to complain of burning in the passage of urine, and pain and sense of weight about the vulva and perineum.

There is also an offensive discharge and an incessant desire to pass water. To find out the cause of the trouble we will have to make an examination. The patient being placed in the dorsal position, as you will always do in making the first examination, we expose the parts adjoining the vulva, and at a glance you will be able to see what a deplorable condition the woman is in. The whole vulva and parts adjacent, and even a short distance down each thigh we see the skin to be red and excoriated. A continual purulent discharge from the vagina is present, and now pouring over the parts keeps up the inflammation which it at first originated. In order to explore more fully the vagina we will put the patient in Sims's position. You can see how awkwardly it is assumed. The correct position is of great importance, and the appreciation of it is the key-note of success to clinical gynecology. I heard one of our most experienced gynecologists say the majority of his patients were sent to him principally on account of the want of recognition of this fact. If the operator sits facing the foot of the table, the best way is to direct the woman to sit with her left hip on the corner of the table opposite his left hand and facing obliquely to the right of the surgeon. She is then directed to roll over slightly to the right and to lie as flat as possible on the chest, the hips remaining stationary, with the transverse pelvic diameter nearly at right angles to the surface of the table; the left arm is extended outward and behind the patient's back. She is now told to draw up both knees toward the chin, the right being a little in advance of the left. The head at the same time must be pointing diagonally across the table towards the corner opposite that on which the hips rest. In this position the object is to get the chest and abdomen in a lower position than the hips. The pelvic viscera then gravitating upward, a sort of vacuum is produced in the vagina which the air rushes in to fill up as soon as the speculum is introduced, and thus the cervix is disclosed to view. We are now able to observe the red and angry look of the vagina as well as the purulent discharge which comes from it. Here is a bad case of vaginitis, from which all this woman's trouble proceeds. Let us first cure the vaginitis and the other symptoms will disappear of themselves. I first cleanse the vagina thoroughly with soft absorbent cotton held in a pair of uterine dressing forceps. This gives us a clean surface to work upon, and allows the medicament to come in direct contact with the inflamed mucous membrane. Taking a fresh pledget of cotton, and soaking it in glycerite of tannin, we mop out the whole vagina, leaving the cotton inside, after plugging the lower part so as to keep the fluid from draining away and soiling the linen. This will remain until to-night, after which another warm water injection will be taken, and the general health will be inquired into at proper intervals. Rest in bed is to be recommended, and it is important to keep the bowels regular.

Case No. 6.—The case you now see, gentlemen, comes for advice, complaining of the following symptoms: She is the mother of 3 children, the last born 3 years ago, and the woman is 28 years of age. For the last 2 or 3 years she has suffered with bearing down pains in the pelvis, accompanied by leucorrhœa, pain in the back, and difficulty of locomotion. Her courses appear regularly and last 4 days, but she suffers from dysmenorrhœa, which at times is very severe. All these symptoms point to trouble in the pelvis, and in order to make a diagnosis we put the woman on the table in the dorsal position. Having had children, the vagina is large enough to allow the introduction of two fingers of the left hand, and the first thing distinguished is the presence of a Smith-Hodge pessary, which I will proceed to extract. This is done by first turning the support sideways in the vagina and then pulling outward and downward. This little manœuver allows the instrument to slip past the cervix in the passage outward and is worthy of remembrance. The pessary is large and flattened, and as it has been retained in place about 2 weeks I will question the patient as to whether it has afforded relief or not, and you can judge for yourselves from her replies. She says from the day it was put in she has been a different woman, her symptoms have ceased and she attends to her affairs in comfort. It is not always a pessary acts so well. When the instrument is used with discrimination and judgment it is a source potent for good, but when used without experience and skill may be the cause of great misery. In the present case the support lifted up a retroverted uterus, allowed the circulation to proceed,

relieved the pressure on the ant. sacral nerves, and, to a certain extent, has diminished the leucorrhœa and dysmenorrhœa. In spite of such evidence as this, however, from numerous cases, there are those who bitterly oppose the use of pessaries in any case. I was surprised to read in a recent journal the adverse opinion of a certain eminent gynecologist in England concerning pessaries, but I was still more astonished when I read that he had never tried one. Such facts as I present to you to-day speak for themselves. I would advise you never to put in a pessary during an acute cellulitis or vaginitis, for in such cases they are worse than useless. Let a support be rather too loose than too tight. Look to it in 2 or 3 days after the first introduction. If it hurts in the meantime tell the woman to pull it out herself, and do not forget to order cleansing injections while it is retained in place. I replace this support by turning it sideways and pushing it in at the expense of the perineum, which is very elastic. The instrument being in the vagina, I introduce two fingers of the left hand under it and turn it in place, then push it downward and then upward and backward behind the cervix. The woman will now be placed on the left side and a Sims's speculum being introduced (the hour being out each gentleman can see for himself the instrument inside in situ.)

Selected Paper.

ON INFECTIOUS DISEASES AND VACCINATION FOR RABIES.[1]

BY LOUIS PASTEUR.

Gentlemen:—In addition to the fact that there are meetings at which the most important problems of medicine are subjected to examination, Congresses also serve to indicate to posterity the chief directions of progress. Three years ago when the Congress met in London the microbe theory in its application to the ætiology of infectious diseases was still the subject of violent attack. Many who opposed themselves to advanced ideas persisted in maintaining that diseases exist "in us, from us and by us."

One would imagine that those who hold that these diseases arise spontaneously, would in London have shown themselves eager to defend this thesis, but opponents to the doctrine that the principal cause of infectious diseases is an external one, did not venture to come forward, and discussion on this question was not even opened. In such an assembly as this, when all are prepared for a new triumph of truth, we see at length a way open for these men to give in to it.

For the rest, all clear-sighted men had foreseen that as soon as one would be able to show that the spontaneous origin of microscopic life was a chimerical hypothesis, and on the other hand that this microscopic life had relations to organic decomposition and fermentation, theories as to the spontaneous origin of disease would cease to exist. In like manner it is from the London Congress that another important advance dates its confirmation, namely, the possibility of attenuating the different viruses, varying their infectivity and preserving them by means of suitable cultures, and lastly, the application of this discovery to veterinary medicine. To the vaccine-microbes of fowl-cholera and splenic fever, one has been able to add others; and the animals that are protected against the attacks of fatal infectious diseases are now to be counted by hundreds of thousands. The violent opposition which this innovation has encountered will soon be swept away in the current of new ideas. Is the application of this new advance then to be confined in the future to the prevention of the diseases of animals? Besides the fact that one need never despair of a discovery and its fruitfulness, can we say that this question is already solved in its principal points? Splenic fever for example is common to animals and man; and we can say for certain, that if it were worth while, nothing would be simpler than to produce in man insusceptibility to this disease. The procedure which is successful in animals, would be applicable without modification so to speak. It would simply depend on one's proceeding with an extraordinary degree of caution, such as the life of an ox or a sheep does not require. Instead of vaccinating with vaccine of only the second degree, one could take three or four of variable viru-

1 Address delivered at the International Medical Congress at Copenhagen, August 11, 1884. From the Medical Times and Gazette, August 23, 1884.

lence, till one chose the first weak enough not to cause the slightest symptom, but which would yet produce insusceptibility to the disease. In the case of human diseases the difficulties lie then, not in the application of the new prophylactic method, but rather in the knowledge of the physiological properties of the virus. To attenuate the virus to the proper degree, it is necessary to control our efforts by experiment; but the experiments which are allowable in animals are criminal when we have to do with man. In relation to the diseases which exclusively affect mankind, this is the chief cause of the difficulties of the investigation. Let me in the meantime remind you that the enquiry, of which we are speaking, dates so to speak from yesterday, that it has already been fruitful in results, and that we have a right to expect new advances when we obtain a closer acquaintance with the diseases of animals, especially those which attack both man and beast. It was the desire to penetrate further into this twofold knowledge which induced me to study rabies, in spite of the obscurity in which that disease was enveloped.

It is now four years since the study of rabies was first commenced in my laboratory, and it has been continued without any other interruption than the enforced cessations which depend on the conditions of the enquiry, conditions which are very unfavorable. The incubation of the disease is always of long duration. There are never sufficient facilities to enable one at a given moment to multiply experiments. In spite of these material hindrances, which however the French Government, in its care for the great scientific interests involved, has done everything in its power to remove, the experiments which we, my fellow-workers and I, have carried out, have nevertheless passed beyond the possibility of numbering them. To-day, gentlemen, I shall only describe the most recent results of our enquiries. Every disease, and especially such a disease as rabies, immediately makes one think of its cure, but to set oneself forthwith to search for remedies is to expose oneself to what is only too often a fruitless labor. It is in a manner to trust to accident for advance. Better is it to undertake in the first place to study the nature of the disease, its cause and development, in the distant hope of thereby discovering means of preventing it. If the problem of rabies is to-day no longer insoluble, it is to these last-named methods that we owe this advance. Thus we have proved that the virus of rabies always develops itself in the nervous system, in the brain, the spinal cord, the nerves and the salivary glands, and never simultaneously invades every part. It may for example fix itself in the spinal cord, and then attack the brain; or one may find it in one or more parts of the brain and not in others.

If one kills an animal, when the disease is at its height, it is often difficult to find the virus of rabies at any given point in the brain or spinal cord, but we have fortunately discovered that in every case in which death occurs as a natural result of the development of the disease, the uppermost portion of the spinal cord, which forms the point of transition between the cord and brain, and which one calls *the bulb*, is invariably the seat of the poison. When an animal dies of rabies (we know that the disease invariably ends in death), it is absolutely certain that one will be able to obtain from the animal's *bulb* rabies-virus, which will produce the disease by inoculation on the surface of the brain in the arachnoid cavity, after previous trephining.

If you take any street-dog you please and inoculate rabies in this manner by trephining, using as inoculating-material a portion of the bulb of an animal which has died of the disease, you will invariably convey rabies. The dogs to which the disease has been communicated in this manner are to be counted by hundreds. The method has never failed. The same operation has been performed on hundreds of guinea-pigs and on a yet greater number of rabbits, without a single failure.

These two remarkable results, the invariable presence of the virus in the bulb of animals dead of the disease, and the certainty that one can communicate rabies by inoculation in the arachnoid cavity are axioms firmly established by experiment and are of extreme importance. Thanks to the careful application and the so to speak daily employment of these criteria we were able to proceed with certainty in a study of such difficulty. But however solid this experimental basis may be, it is not in itself able to show us the way to a vaccination-method against rabies. In the present position of science to presuppose the discovery of a means of preventing in-

fectious disease by vaccination—(1) one must have at one's disposal a virus which can exist in different degrees of virulence, the weakest of which may serve as a vaccine; (2) one must have discovered a method of producing these varying degrees of virulence. Hitherto science has known only one kind of rabies, that which occurs in dogs. All hydrophobia, in dogs, men, horses, cattle, wolves, foxes, etc., comes originally from the bite of a mad dog. Rabies never arises spontaneously, either in the dog or any other animal.

None of the instances on record of rabies occurring spontaneously are really authentic; I will add that in making this assertion I do not ignore the fact that there must have been a *first* case of rabies. To come forward with this kind of objection, when it is a question of solving the enquiry which engages us, helps no one, but touches a problem which even now is still inscrutable—the very problem of life. It is like answering one who should maintain that an ovum always originates from an ovum, but nevertheless that the first ovum must have originated spontaneously. Science, which knows itself, sees that it benefits nobody to argue about the origin of things; it sees that such origin for the moment at least lies beyond its province.

In short, the enquiry whether the rabies-virus can occur in different degrees of virulence like the virus of fowl-cholera, of splenic fever, etc., that is the first question to solve in order to arrive at the prophylaxis of hydrophobia. But how does one obtain the knowledge that there are various possible degrees of virulence in the virus of fowl-cholera? And to what signs does one have recourse to determine the strength of a virus which kills whenever it infects?

Does rabies present any symptoms to help us? No, these symptoms are very variable. They depend essentially on the brain or spinal cord, where the virus instantly concentrates itself and flourishes. The mildest rabies that occurs—for such does occur—may in another animal of the same species produce the most violent rabies. Can one then determine intensity by means of the duration of the incubation period? No, nothing is more variable. A mad dog bites several dogs; one of these goes mad after an interval of a month or six weeks, another after two or three months' interval, and so on. Further, nothing can be more variable than the duration of the incubation period, according to the various modes of inoculation. Does one never see hydrophobia now occur, and now fail to occur, after a bite or hypodermic injection under exactly similar circumstances in every other respect, whilst inoculation on the surface of the brain never fails, and the incubation-period is in such case of proportionally short duration?

Nevertheless, it is possible to determine, with sufficient certainty, the strength of a rabies-virus according to the duration of the incubation, but on two conditions. One must make use of intracranial inoculation, and one must bear in mind that the manner in which inoculation takes place furnishes one of the most powerful sources of irregularity in the results according as inoculation is by bite, by hypodermic or intravenous injection. The duration of incubation may really depend very much on the quantity of active virus, that is, the virus which reaches the nervous system without diminution or change. Notwithstanding that the quantity of virus which will produce rabies may be, so to say, infinitely small—it has been shown that, as a general rule, hydrophobia occurs in consequence of a bite, whereby the quantity of virus introduced into the body must generally be so small as to be almost indefinable—it is easy to double the length of the incubation, simply by taking a still smaller proportion of the small quantity inoculated. I will quote some examples:

On May 10th, 1882, there were introduced into the popliteal vein of a dog ten drops of a fluid, which had been obtained by macerating in three or four times its weight of sterilised broth a portion of the bulb from a dog, which had died of rabies after being found in the streets in a mad condition.

A second dog was inoculated with a hundredth part of the quantity, and a third dog with a two-hundredth. The first dog was seized with rabies after an incubation period of 18 days, the second after 35 days, the third remained unaffected, *i.e.*, in this last case, and by the method of inoculation used in this experiment, a certain quantity of virus proved insufficient to produce rabies. This last dog was susceptible of rabies, as all dogs usually are, for it was again inoculated on September 3d, 1882, and was seized with rabies 22 days later.

I take another example, which occured in rabbits, and in which another mode of inoculation, viz., trephining, was employed: —The bulb of a rabbit, which had died of rabies after inoculation with a very virulent virus, was dissolved in two or three times its bulk of sterilised broth. After it had been allowed to stand for some few seconds, two drops of the supernatant liquid were inoculated into a rabbit by trephining, another was inoculated with a fourth of that quantity, and other rabbits were subsequently inoculated with $\frac{1}{16}$th, $\frac{1}{64}$th, $\frac{1}{128}$th, $\frac{1}{512}$th of the same quantity respectively. All these rabbits died of rabies, and the length of incubation was eight days in the first, nine in the second, ten in the third and fourth, and twelve to sixteen days in the two last. The variation in the period of incubation was not occasioned by an attenuation of the actual virulence of the virus, such as might be produced by solution; for there was a return to the eight days' incubation period if fresh rabbits were inoculated with the virus obtained from these rabbits after death. We see from these examples that in the case where rabies is produced by a bite, or by hypodermic injection, interference with the length of the incubation period must be chiefly ascribed to the great variation which is possible in the amount, always indefinite, of inoculated poison which reaches the central nervous system.

If then we wish to determine the intensity of the virus from the length of the incubation period, it is unavoidably necessary to have recourse to inoculation by trephining, which is absolutely certain in its effects, and to employ larger quantities than such as would be necessary simply to produce rabies. When we operate in this way, irregularities in the length of incubation with the virus will show a tendency to entirely disappear, because we always obtain the maximum of effect which the virus can produce; that maximum corresponding to the minimum duration of incubation.

Thus we have at length obtained a method which has enabled us to enquire into the possible existence of varying degrees of virulence, and to mutually compare them. The only secrets in this method, I repeat, are to inoculate by trephining, and to use a quantity of virus, which, although very weak, is more than sufficient to produce rabies in and by itself. This method eliminates the causes which might interfere with the duration of the incubation period, and makes it dependent exclusively on the activity of the virus, the comparative strength of which varies according to the minimum duration of incubation, which is determined by its effect.

The first application of this method was in connection with the study of rabies, and expressly in connection with attempts to discover if rabies is always one and the same, only with such differences as the varying nature of different kinds of dogs might produce. Let us then take wandering mad dogs at any season you please in the same year, or in different years, and belonging to the most different varieties. Let us in each case isolate the bulb, and, with the material obtained from it, inoculate by trephining from one to two rabbits, using two drops of the fluid obtained by macerating the bulb in two or three times its bulk of sterilised liquid; all proper cleanliness being observed. Let the inoculation be performed with the help of a Pravaz's syringe, somewhat bent at the end, introducing it through the dura mater into the arachnoid space. The following will be observed: In all the rabbits, no matter what mad dog was used to inoculate them from, the incubation period will fall almost without exception between the twelfth and fifteenth days—you will never meet with an incubation period of eleven, ten, nine or eight days; though you may sometimes meet with periods of several weeks or several months.

Rabies thus clearly enough possesses one poison only; its modifications, which however are very limited, depend simply on the known difference in the susceptibility of various kinds of dogs. But we shall now see a very marked change in the virulence of rabies-virus.

Let us take after death one of the numerous rabbits which we have inoculated with the virus taken from a mad dog, and let us introduce two drops of its bulb, prepared in the way given above, in another rabbit, whose bulb again shall serve to inoculate a third rabbit, and its bulb again to inoculate a fourth, and so on. You will then observe, even from the first transmission, a diminution in the incubation period in the various rabbits. I will give an example:

In the last month of 1882, fifteen cows and one bullock died of rabies on one farm

near Melun, a principal town in the Department Seine et Marne, in consequence of having been bitten, on October 2d, by the farm-dog, which had gone mad. The head of one of the cows, which died on November 19th, was sent to the laboratory of M. Rossignol, a veterinary surgeon at Melun. Numerous experiments, performed on dogs and rabbits, showed that only the following parts were the seat of the virus, viz., the cerebrum, bulb and cerebellum, the frontal and temporal lobes. The rabbits which were inoculated from these parts were seized with the disease on the seventeenth or eighteenth day after inoculation. With the bulb taken from one of these rabbits after death, two other rabbits were inoculated, one of which was attacked by the disease on the fifteenth day, and the other on the twenty-third day after inoculation. I will observe once for all, that if we transmit rabies from one animal to another of a different species, before the virus has reached its maximum in the former, considerable irregularity is met with in the duration of the incubation period. We have here an instance of this, for the same virus in one rabbit gave an incubation period of fifteen days, and in the other one, of twenty-three days, though all the other conditions were apparently similar.

With the bulb taken from the former of these two dead rabbits, two other rabbits were inoculated. In one of these the disease appeared after an interval of ten days; in the other after an interval of fourteen days. The bulb of the former of these was in like manner used to inoculate two more rabbits, in whom the disease appeared after intervals of ten and twelve days respectively. In the fifth transmission to two rabbits the disease appeared in both after eleven days' interval, in the same manner in the sixth transmission the disease appeared after eleven days' interval, in the seventh after twelve days' interval, in the eighth after ten days' interval, in the ninth also after ten days' interval, in the tenth after nine days, in the eleventh after eight days, in the twelfth after nine days, and so on, with variations of not more than twenty-four hours at the outside right down to the twenty-first transmission, when rabies appeared after eight days' interval; the same interval of eight days was obtained in further transmissions, down to the fifteenth, which has recently taken place. This series of experiments which commenced on the 19th November, 1882, is still in progress.

Allow me at this point to draw your attention to the extreme certainty and facility which characterises trephining and subsequent inoculation with rabies-virus: for on every twelfth day for a period of about twenty months a succession of rabbits have been trephined and inoculated with a rabies-virus procured from a single individual, and that without any interruption in the success of the experiments.

Guinea-pigs most rapidly attain the maximum virulence peculiar to them. In these animals the incubation period, which varies and is irregular at the beginning of successive transmissions, quickly attains a definite duration of five days. Seven or eight transmissions from guinea-pig to guinea-pig brings us to the maximum virulence. Moreover, both in guinea-pigs and rabbits, one observes according to the origin of the virus variations in the number of transmissions required to obtain the maximum virulence. If we transmit this maximum degree in rabbits and guinea-pigs to dogs, we obtain a virus which far surpasses in virulence that of the rabies which is commonly met with.

But I hasten to say, that whatever may be the usefulness of the discovery which I have just described, there exist and can be produced different kinds of rabies—all of which are more violent and kill more rapidly than the rabies which occurs in dogs. Scientific men overlook nothing which can be discovered in the field of science; but many whom the very thought of rabies strikes with fear look for something more than scientific curiosities. How much greater interest would man have in becoming acquainted with a rabies-virus which had been attenuated in its virulence! One then might cherish a hope of obtaining a vaccine from the rabies-virus, such as we have obtained in fowl-cholera, splenic fever and even acute septicæmia. Unfortunately the methods of procedure which were used in regard to these poisons proved themselves inapplicable in dealing with the virus of rabies. It therefore became necessary to try new and independent methods, for instance, cultivation of the rabies-virus in glass.

Jenner was the first to propound the idea that the poison which used to be called

"grease" in horses, but which we now more accurately describe as "horse-pox," must be attenuated in its poisonous activity, if I may use the expression, by being transmitted through cows, before it could be introduced without danger into the system of man. This induced us to think it might be possible to attenuate the rabies-virus by passing it through the bodies of certain animals. Many attempts were made, but in the majority of the experiments on animals, the poison increased in virulence, just as in rabbits and guinea-pigs; fortunately this was not so in the case of monkeys.

On December the 6th, 1883, the bulb of a dog, which was known to be mad from the fact that a child which it had bitten had died of hydrophobia, was used to inoculate a monkey by trephining. The monkey was attacked with rabies eleven days later; from the first monkey the virus was transmitted to a second one, which was also attacked with rabies after eleven days' interval. In a third monkey rabies declared itself after an interval of twenty-three days, and so on. With the bulb of each of these monkeys two rabbits were inoculated by trephining. The rabbits which were inoculated from the first monkey were seized with rabies after intervals of thirteen and sixteen days respectively; those inoculated from the second monkey, after fourteen and twenty days; those from the third after twenty-six and thirty days; those from the fourth after twenty-eight days, in each case; those from the fifth after twenty-seven days; and those from the sixth after thirty days.

It is thus impossible to doubt that by transmission from monkey to monkey, and from the different monkeys to rabbits, the strength of the poison is weakened in the latter just as it is weakened in the dog. A dog which was inoculated with the bulb of the fifth monkey had an incubation period of not less than fifty-eight days, although inoculation was performed by trephining. Other experiments of the same nature, which were performed on a series of monkeys, led to results of a like character. We are thus in possession of a method which enables us to attenuate the virulence of rabies. Successive transmissions from monkey to monkey produce a virus which, on being transmitted to rabbits, communicates rabies after an incubation period, the length of which gradually increases. If, on the other hand, one passes on from these rabbits to successively inoculate fresh rabbits, the rabies comes under the law of increasing virulence on transmission from rabbit to rabbit, of which I have already spoken. The application of these facts yields a method of vaccinating dogs as a protection against rabies. We take as a starting point one of the rabbits which have been inoculated from monkeys, to such a sufficient degree that hypodermic or intravenous injection does not cause death. The succeeding preventive inoculations are performed with the virus containing bulbs of the rabbits which have been the subjects of successive transmissions of infection from rabbit to rabbit, proceeding from the first infected.

In our experiments we have as a rule employed inoculation with virus from rabbits which have died after an incubation period of four weeks, but three or four times we have renewed our preventive inoculation from the bulbs of rabbits, which have been inoculated from the rabbit which served as our point of departure.

After I had brought into use this method of vaccinating dogs as a protection against rabies and had collected a large number of dogs, which were rendered insusceptible of the disease, foreseeing a more extensive application of the method, and remembering the opposition which was at first shown to Jenner's discovery, I determined to lay before a scientific commission such of my results as it was obvious must serve in the future as the basis for the vaccination of dogs for rabies.

The Under-Minister of Instruction, M. Tallières, to whom I mentioned my project, was willing to support it, and appointed MM. Béclard, Paul Bert, Bouley, Tisserand, Villemin, and Vulpian to enquire into the facts, which I had already communicated to the Academy of Sciences at its meeting on 29th May. After having chosen M. Bouley as President, and M. Villemin as Secretary, the Commission at once set to work, and I have the satisfaction of being able to tell you that it has quite recently presented its first report to the minister.

I will now give a brief account of the results with which the first report of this Commission deals. I presented to the Commission nineteen vaccinated dogs, all

of which had been rendered insusceptible by preventive inoculation, and thirteen of which after vaccination had been proved by inoculation by trephining. These nineteen dogs were compared in different ways with nineteen dogs chosen from others for the purpose of the experiments. In the first place, on the 1st of June, two of the protected dogs and two of the trial dogs were inoculated by trephining under the dura mater with the bulb from a mad street-dog. On the 3rd of June, one protected dog and one trial dog were bitten by a mad street-dog. On the 4th of June, the Commission made the same mad dog bite another protected and another trial dog. On the 6th of June, the mad dog which had been used on the 3rd and 4th of June died, and with its bulb three protected dogs and three trial dogs were inoculated by trephining. On the 10th of June, the Commission had one protected dog and one trial dog bitten by a fresh mad dog from the streets. On the 16th of June, the Commission had two fresh dogs, one protected and one trial dog, bitten by one of the trial dogs of the 1st of June, which had gone mad on the 14th, as a result of the trephining performed on the 1st of June. On the 19th of June, the Commission had three protected and three trial dogs inoculated in one of the popliteal veins with the bulb of a mad street-dog. On the 20th of June, the Commission also had ten dogs, viz., six protected and four trial dogs, chosen from several others, inoculated in a vein. On the 28th of June, it having been brought to the knowledge of the Commission that a veterinary surgeon, M. Paul Simon, had a mad dog in his hospital, four dogs were brought to it, viz., two protected and two trial dogs, in order that it might bite them.

The Commission on rabies has thus performed experiments on thirty-eight dogs, nineteen of which had been supplied by me as insusceptible to rabies, while the other nineteen could be made mad. Those of the dogs which have not died as a result of the experiments are under observation, and will be kept under it for a long time. As to the present condition of the dogs which have been the subject of enquiry, the Commission report that in the case of the nineteen trial dogs, of six which were bitten, rabies occurred in three, of seven which were inoculated in a vein it occurred in five, and of five who were inoculated by trephining it occurred in all, while *not a single sign of rabies has shown itself in any of the nineteen vaccinated dogs.*

During the course of the enquiry one of the protected dogs died on the 13th of July from a sanguineous diarrhœa, which first declared itself in the early days of that month. In order to determine whether rabies had any share in its death, three rabbits and one guinea-pig were at once inoculated with its bulb by trephining. All of these four animals are still in the best of health, which is a certain proof that the dog did not die of rabies, but of a common disease.

The next report of the Commission will contain information as to the insusceptibility to rabies of twenty dogs which have been vaccinated by the Commission itself.

Clinical Notes.

REPORTED BY L. E. NEALE, M. D.,

Chief of Clinic and Demonstrator of Obstetrics in University of Maryland.

Case I. August 18th, 1884, I was called to see Mrs. M. æt. 22 yrs. in labor at term with her first child. I found the head in the cavity of the true pelvis, L. O. I. P., membranes intact. By 10 A. M. the os was completely dilated, and the membranes ruptured, but the occiput remaining posterior, the pains flagging, œdema about the genitals, "caput" forming, and the patient pleading for relief. At 2 A. M. I delivered her with Simpson's forceps of a moderate-sized living female child. A very superficial perineal laceration was closed with two silk sutures, and a perfectly normal puerperium followed. * * * *

Case II. (University Hospital, Obstetric Department). Mrs. B. æt. 26 yrs., III para, in labor over full term Aug. 19th, 1884, 1.30 A. M.

By 7 A. M. os dilated, membranes ruptured, head fixed in the brim R. O. I.

By 10 A. M., no progress having been made, the pains becoming feebler and ineffectual, "caput" forming and much œdema about vagina and external genitalia, I used Prof. Howard's modification of Tarnier's forceps. The left blade was introduced high up on the left side of the pelvis and pushed gently around anteriorly, the right blade to the right side and be-

hind, the instrument applied and locked without the slightest trouble.

Three firm and steady tractions by the traction rods downwards and backwards in the axis of the superior strait, brought the head through the brim without any difficulty whatever.

Just as the head came through the brim, and before the last traction had ceased, the occiput rotated posteriorly to the right side, the forceps of course following, rotating in the joint attached to the handle of the traction rods. I then removed the Tarnier and applied Simpson's forceps easily delivering the head, the occiput remaining posterior and the perineum receiving not even a scratch. After some little difficulty in extracting the shoulders from the brim, I had the happiness to deliver the woman of a fine, hearty *fifteen lbs.* male child, without the slightest damage to either one. Puerperium perfectly normal.

If the posterior rotation of the occiput in this case was not due to some natural cause of which I was and am entirely ignorant, then I will admit that the blades of the forceps may have caught the head a little too far forwards towards the face, and pulled it into a slight extension instead of the normal forced flexion, thereby favoring posterior rotation.

With the head at the brim, the forceps will invariably adapt itself to the sides of the pelvis, and we are forced to grasp the head as best we can, being happy if we can get the instrument to hold firmly in any position. * * * * *

It is *only* in such cases as the above that I would use the Tarnier forceps. Were the head movable above the brim I would prefer podalic version for the reasons so well known to obstetricians, and well given by Dr. Kingman in the July number of the *American Journal of Obstetrics*, 1884, p. 723. Were the head already below the brim, *i. e.*, in the cavity of the true pelvis, the ordinary forceps in use are surely sufficiently powerful, less complicated, less dangerous and easier to manipulate. When I say less dangerous I mean less liable to produce lacerations or abrasions of mother or child or both. I am aware that some of my readers may possibly take objection to this point, if so I will not parry words or opinions before humbly requesting them to faithfully and truthfully report their own experience or their own observations. * *

The Tarnier forceps, like everything else in our mundane sphere (especially medical), is undergoing quite a cycle of changes and modifications, so that it would be difficult to say positively which is the best model up to date. It being granted on general principles an instrument that will satisfactorily do a given work is preferable in proportion to its simplicity, I think I might be pardoned should I employ in a subsequent case the simple means described and illustrated by Charpentier in his edition of '83, pp. 590–91. This is merely inserting a band of silk or other strong soft fabric, (previously rendered antiseptic, *i. e.* practically speaking, thoroughly cleaned) between the ribs of any ordinary long forceps—Hodge, Barnes, &c., and using the long ends of the band after the manner of traction rods. Of course in this device the handles of the forceps may be bound together by a cloth to maintain a firm grasp of the blades upon the head. * * * * *

It may probably not be out of place to mention here a very neat combination of the Tarnier with Braun's, or Simpson's or Barnes' forceps which I saw in Vienna last year, modeled by Felsenreich, Braun's 1st assistant, and I believe about the same time, '82–'83, an analogous model was made by a gentleman in Edinburgh. It is the simple Braun, or Simpson, or Barnes, or any other similarly constructed forceps unaltered, save as follows:

1. The *removable* traction rods were inserted into the outer extremity of the inferior ribs by the ordinary "button-hole" joint, the head of the button being fixed, of course, to the end of the rod, to be slipped into the hole in the rib from without inwards, playing evenly on a level with the inner concave surface of the blades.

2. The ends of the forceps' handles instead of terminating bluntly were arranged to receive Braun's *removable* compression screw; nothing more nor less!

By removing the traction rods and compression screw we have the ordinary forceps practically unaltered. By reinserting both we have—at least in principle—the Tarnier forceps.

This instrument is sold by Leiter, of Vienna, for $10 to $12. I do not know of a model in this country.

Society Reports.

BALTIMORE ACADEMY OF MEDICINE.

STATED MEETING, HELD APRIL 1ST, 1884.

(*Specially reported for Md. Med. Journal.*)

The President, Dr. F. T. Miles, in the chair.

Value of Blisters in the Treatment of Diphtheria.—*Dr. E. M. Reid* reported several cases in which marked benefit and improvement in the throat symptoms followed the application of blisters to the chest. As soon as the membrane made its appearance on the blistered surface the relief was observed. In some cases as the blister healed the throat symptoms reappeared, but on the application of another blister and the metastasis of the membrane, the same relief ensued as before.

Diphtheria in a Medical Man.—*Dr. T. F. Murdoch* reported the particulars of an attack of diphtheria occurring lately in a prominent surgeon of Baltimore. On Friday he operated on a child with "Membranous Croup," performing tracheotomy. On the following Sunday night he went to bed feeling badly. On Monday morning he remained in bed, with a violent headache and fever. On Tuesday there was some congestion of throat, temp. 100°, pulse 120. On Wednesday morning the uvula was still enlarged, and his son said he had wiped off a patch from the throat. At midday, Dr. M. got off some membrane from behind uvula. He suffered from cold sweats and great depression. Tinct. Ferri Chloridi, gtt. 30-40 every two hours with quinine, milk and beef-tea, followed by brandy, constituted the treatment. He got better. The quinine made him extremely nervous and was therefore stopped. Bichloride of mercury was tried, but disordered his stomach and was suspended. The chief reliance was placed on brandy, which was given very freely—℥iiss every two hours—so that one gallon of brandy and a quart of port wine were given altogether within six days, yet no unusual effect was observed from this large quantity. The iron was continued from beginning to end. The case operated upon was diagnosed membranous croup. In regard to the relation of diphtheria and membranous croup, Dr. M. said the prevailing opinion is that they are identical; his own experience convinced him that they were one and the same disease. Dr. M. mentioned another case in which diphtheria was communicated from a case of so-called "true croup."

Dr. Tiffany said the medical world is coming to regard the two affections as identical. He was not able to make a differential diagnosis, nor had he seen any one who could make it.

Dr. Van Bibber took the opposite view and pointed to the great adynamia, the swelling of the glands of the neck, and the membrane on the throat as indicating a distinct character of the diphtheritic affection.

Dr. Reid spoke of a case which had been diagnosed by Dr. Cuddy as membranous croup. The child died on the second day. Five or six days later a girl who had been in the room was taken sick with true diphtheria; also a lady who had nursed the child contracted diphtheria and died in ten days.

The President. Dr. J. Lewis Smith says all become diphtheritic in time whatever we call it in the beginning. Dr. Morell Mackenzie holds the same view, but has not had anything like the experience in children's diseases of Smith, whose authority upon this subject is equal to that of any man in the world.

Dr. Steuart said we are misled by the variety of manifestation in the inception and development. On the one hand we are attracted by the sudden croupy cough; on the other we are most impressed by the fever, lassitude, and membrane in the throat.

Dr. White said that if these diseases are identical, scarlatina and diphtheria must be so also. Had seen them associated, but had never seen any evidence of association between scarlatina and croup.

The President said diphtheria had been described for centuries. The designation "putrid sore throat" was formerly applied to it. This term is expressive of a prominent pathological feature, viz., the destruction of the vitality of the membrane. Believed this to result often from the use of caustics. In croup the change is more superficial.

Dr. McSherry had found the corrosive sublimate a very valuable agent in the treatment of diphtheria. Regards it as probably acting through a germicidal in-

fluence. Had no doubt that alcohol and the above are the two best remedies in the disease. In case of great exhaustion would regard blisters as exceedingly hazardous; otherwise thought they might by a derivative action be of great service. Anything will disagree in some cases; had seen some cases of malarial fever in which quinine could not be tolerated.

Obscure Epigastric Tumor.—*Dr. McSherry* spoke of a case which Dr. Chew had diagnosed as one of aortic aneurism. The aortic sounds were widely diffused. There was no great dulness. There was a very considerable tumor between the ensiform cartilage and the umbilicus. The history showed that the patient had received an injury in this region some years ago. Dr. M. at first regarded the case, with Dr. Wilson, as carcinomatous. The tumor went away and partially reappeared, showing that it was more like a cyst or abscess, but hardly a carcinoma. The chest on the right side presented a singularly resonant percussion sound (tympanitic) when the patient was lying down, but was nearly normal on sitting up. There was some ascites, also tympanites, and the suffering of the patient was mainly owing to wind and water pressing up the diaphragm. There were casts and albumen in the urine. The patient died apparently of pure asthenia. No post-mortem was obtained.

Editorial.

Lawson Tait on Abdominal Surgery.—In an address delivered before the Canadian Medical Association, at its annual meeting, in Montreal, August 25th, Mr. Lawson Tait, the well-known authority on abdominal surgery, discusses this subject in his bold, independent and characteristic manner. Mr. Tait passes over the ground in rather too rapid a way to place his audience in full possession of the secrets of his remarkable success in his special field of scientific work. Various subjects are treated, but as the speaker passes from point to point he leaves his hearers in possession of many valuable suggestions. The address which appears in full in the *Medical News* (Sept. 6th) is worthy of much careful reading since it places the reader in possession of the views of the most successful surgeon in the field of abdominal surgery now living. We believe Mr. Tait's record is without a parallel, and since he is yet scarcely in the prime of life this record seems destined to shine more resplendent as his experience and skill are improved by the years of labor apparently before him. Mr. Tait is perhaps the most remarkable of the English surgeons who now rival the rest of the world in the field of abdominal surgery. He has forced his way to the front rank by his boldness, skill and indomitable will. He is possessed of remarkable courage which is backed by an implicit confidence in his own ability and skill to achieve success wherever his judgment directs him to proceed. The utterances of such an authority are entitled to full consideration.

After a few introductory remarks, in which reference is made to the intensely conservative spirit of the English, Mr. Tait pays a compliment to the medical schools of America in predicting that ere long it will be to these schools rather than to those of Europe, that our students will travel, as did the apprentices of old before they settled down to the serious exercise of their craft. Mr. Tait even regrets that in his early days the time and money spent on his education had not been directed to the Western instead of to the Eastern continent. He says the Americans have impressed him with possessing a feature of mind which in England he fears they do not possess—"the power of judging any question solely upon its merits and entirely apart from any prejudice, tradition or personal bias." He hopes that he may break free from the tradition rules which bind him as fully as his countrymen, and that his visit to a freer country and a better climate may extend his mental vision. In these words Mr. Tait does creditable justice to the American people and to American institutions.

Passing to the early history of abdominal surgery, Mr. Tait admits that abdominal surgery dates from the operation of McDowell in 1809, but he does injustice to McDowell in the intimation that he imitated the example of Robert Houston, who first operated in 1701. The facts are that McDowell probably never heard of Houston's case. Mr. Tait reiterates a former statement that the whole credit of the modern development of abdominal surgery is due to Keith.

In discussing the doctrines and practice

of Lister, Mr. Tait admits that he had practiced them in all of their details but had found that they disappointed and hindered him, and he gave them up. He says the only surgeon now who uses the Listerian details for abdominal surgery is Mr. Knowsley Thornton, and that Keith, Bantock, Savage and himself all have far better results without Listerism than Mr. Thornton has with it.

Mr. Tait says he has been honored by the visits of a large number of surgeons, and he believes they all come with the belief that they would find some secret antiseptic agent, the use of which was the explanation of success. "If I have such an agent, it must be of universal existence in nature, for I have made some of my visitors take water from the tap and put it into the basins for the sponges and over the instruments and into the abdomen. I have made them drink it and have offered it to them for analysis, and so far, I have not been detected in any exercise of magic."

In answer to the question to what does he attribute his success, Mr. Tait answers: "I cannot tell. If I formulate my own answers, they would be briefly to this effect: I have given up my life to this work and I engage in no other kind of practice; therefore I have a constant weekly experience of five or six of these operations, sometimes as many as eight or ten. I pay the most minute attention to every detail, and maintain an absolute rule of iron over my nurses and my patients. I will not, if I can avoid it, operate in a private house, for there I have no control over either nurse or patient, still less over foolish friends." Mr. Tait trains his own nurses and will not have one that has had a previous experience, knowing full well that such a woman will do something altogether foreign to his purpose and will therefore become a source of danger.

Finally Mr. Tait says he gives great personal attention to cleanliness in every detail of his work. "I trust no nurses or servants without overlooking; and I am constantly and at unexpected times turning up carpets, taking down shelves and routing out cupboards. In this way and by a process of weeding, I have obtained a large staff of good servants, and have founded a large establishment, in which every available precaution is secured. I can give no other reasons than these for my success, and probably they will commend themselves to you.

There are, however, some causes intrinsic to the work itself from which the success has sprung to a large extent." The first of these, Mr. Tait considers, is the discontinuance of the clamp. Mr. Tait takes occasion to criticise Sir Spencer Wells' results with the use of the clamp and his treatment of the pedicle by the use of the perichloride of iron. He says: "It will be curious, indeed, and no less instructive, if we find that Dr. Bantock is right, and that the use of perchloride of iron—the only contribution Sir Spencer Wells has ever made to abdominal surgery—should turn out to be the cause of his tremendous mortality."

Turning to the statistics of ovariotomy Mr. Tait shows that the mortality of this operation in the hands of Keith and himself still remains at or about three per cent., which they have shown to be the least mortality available. The early removal of ovarian tumors, and the discontinuance of tapping, have, Mr. Tait says, "largely contributed to our splended results." Mr. Tait next takes up the subject of uterine myoma and discusses the two methods of its treatment. He boldly attacks the ultra-conservative method of dealing with such cases. "Those of a past generation, like Sir Spencer Wells, apparently regard it as justifiable to perform operations in this department of abdominal surgery only when life is pronouncedly in danger; whereas, on the contrary, we of the younger school believe we are justified in extending our practice for the relief of suffering, and we regard this as a higher function than that of the mere saving of life." Mr. Tait claims that critics endeavor to apply an arbitrary rule for the repression of abdominal surgery, which has never been applied in any other department of our art. "In fact in the domain of what is called general surgery, has it not become an established practice to perform operations which are accompanied by very considerable risk of life merely for the rectification of deformities, such as bow-legs and knock-knee, which have not the remotest risk of life attached to them and which involved no kind of suffering?"

The treatment of uterine myoma is considered under two heads; the removal of the uterine appendages and the removal of uterine tumor. Mr. Tait naturally prefers

the first method, and he disposes of the objections to this operation in a very few concise words.

Chronic inflammation of the tubes and ovaries come in for a lengthy discussion, and Mr. Tait shows that in this important field of new work in abdominal surgery many cases are relieved at once and completely by the removal of the diseased appendages.

The operation of our own countryman, Dr. Battey, receives a passing notice, but Mr. Tait very naturally inclines to the opinion that the mere removal of the ovaries without their appendages is a faulty procedure. So far as his own work in Battey's operation is concerned, in not a single one of the six patients operated upon were the uterine appendages normal.

Mr. Tait's address throughout is teeming with practical sense. Whilst it conveys the impression that Mr. Tait is a thorough believer in himself and in his own methods, the conviction is left that the speaker thoroughly understands his subject and is absolutely positive of the correctness of his opinions.

Koch's Views on Cholera.—This now famous experimentalist has recently given his views on the subject of cholera before an assemblage of the most eminent men in Berlin. He was subjected during the ensuing discussion to a very searching cross-questioning. His answers showed that he had considered the subject in all its phases; that his researches had been most varied and exhaustive, and that his opinions were remarkably exact and decided. It is not to be expected, of course, that all will be able to follow the eminent Berlin pathologist or to adopt so soon his views. Dr. Koch was able to affirm definitely that the comma bacillus is always present in the intestinal tract in cholera; that it is present in sufficient numbers to account for the symptoms, and that it is absent in other diseases. So far, however, he has failed to find any animal which is capable of being infected with the disease through the comma bacillus—or in fact in any other manner. It may de said, however, that the fecal dis charges have equally failed, both in men and animals. Various interesting facts were elicited in the course of the discussion which followed the reading concerning the life history of the comma bacillus; as for instance that it rapidly dies on drying; that freezing does not destroy its vitality; that it is an air-breathing organism requiring oxygen for its growth and development; that it grows very rapidly, quickly attaining the maximum and then after a brief stationery period as quickly dying; that it grows readly in meat infusion, milk, geletine and blood serum; that it is killed by the bacteria of putrefraction, etc. Koch believes that the bacillus originates in India and is propagated from that centre only. He also believes that an early diagnosis of an epidemic of Asiatic cholera may be made by means of cultivation of the cholera bacillus which he maintains is a very simple procedure. Whilst we are almost constrained to accept Dr. Koch's views without further question, a wise reserve demands that we should follow the example of Virchow and other eminent men and still hold the matter sub judice. Especially is this incumbent since Klein and others have found organisms closely resembling the comma bacillus in other diseases than cholera. The French Commission, (MM. Strauss and Roux) it may be added, are still unable, after further experience in Toulon, to accept Dr. K.'s opinions.

Death of Cohnheim.—The death of this eminent histologist is announced as occurring at Leipsig on the 14th ulto., at the comparatively early age of 45. He was one of the most distinguished pupils of Virchow, and was his assistant at the Berlin Pathological Institute from 1864 to 1868. He had held chairs in Kiel and Breslau, and at the time of his death occupied that of General Pathology and Pathological Anatomy in the University of Leipzig. His death was due to gouty disease of the kidneys. Few names were better known than that of Cohnheim, whose researches on embolism and the escape of the white corpuscles from the walls of the blood vessels in inflammation are among the most striking events in pathology of this century.

Miscellany.

Pilocarpine in Ascites.—Ascites caused by cirrhosis of the liver has not been very amenable to treatment up to the present time. Most physicians have therefore

come to the conclusion that paracentesis was the only resort. Drastics and diuretics had to be abandoned as inefficient, and, in fact, there seemed to be but little hope for this class of sufferers. Harley and Roberts allege that repeated paracentesis promises good results; while, on the other hand, there are those who have never accomplished anything by puncture. Mackenzie reports two diseases cured by means of flannel bandages wrapped tightly around the abdomen. Siegnit combines with the bandaging faradization of the abdominal muscles. From all the different reported cures one can readily understand that the treatment of ascites caused by disease of the liver has been quite unsatisfactory, and most of the cases have been treated on the expectant plan.

During the year 1880 the author treated a case of this kind by all the remedies that have been recommended in the books, but without good results. Finally paracentesis was resorted to, but with each operation matters grew worse, and the quantity of liquid steadily increased. It occurred to him to administer pilocarpine immediately after the operation, to prevent or give other course to the serous exudation that each time was emptied into the peritoneal cavity. The patient received twice daily 15 milligrammes of pilocarpine for six consecutive days, with the effect of causing profuse diaphoresis and discharge from the salivary glands. Stimulants were given the patient to counteract the weakening effects of this medication. From the administration of the first dose the ascites diminished, and the patient was finally discharged from the hospital as cured. Three months later the patient was examined, but did not discover a symptom indicating disease of the liver or ascites.

Another case the author treated in conjunction with Dr. Haas. The diagnosis was an enormous ascites caused by disease of the liver. The swelling was so great that it caused dyspnea, for the relief of which paracentesis was made a few times, and 20 to 30 litres of fluid were removed. The effect was not lasting. Finally the respirations ran 38 and the pulse 118 per minute. The urinary secretion was entirely suppressed. After a consultation it was determined to employ large doses of pilocarpine, for the case seemed hopeless. The patient received twice daily ·01 gramme of pilocarpine in a large dose of whiskey, besides some solid food. The drug did not seem to act so favorably in this case, diaphoresis being very scanty- Two weeks later, after another puncture, the dose was increased to two centigrammes, and followed by a large dose of whiskey, with the result of causing profuse sweating. Powdered jalap with cream of tartar was given in conjunction for the constipation. The patient recovered, and was as healthy as ever.

If the results in these two cases do not indicate much, they may induce other observers to try the same treatment. Paracentesis not only often does no good, but seems to do harm. Both of these patients were very much weakened, and it seems almost incredible that they could tolerate two centigrammes of pilocarpine twice a day, but probably the large dose of stimulants given shortly after did much to counteract the depressing effect of the drug.—*London Med. Record.*

Hysterical Dyspnœa.—The Leipzig correspondent of the *Canada Medical and Surgical Journal*, thus describes an interesting case seen at Prof. Wagner's Clinic: Among many interesting cases which I saw at this clinic, I will mention one—a very rare form of hysterical breathing. On June 30th, a girl, aged 15, was brought into the clinic, and long before the attendants had wheeled the bed into the theatre we could hear extraordinary cries succeeding each other with great regularity, and resembling somewhat the baying of an animal. When the bed was brought in, upon it was a slightly built, emaciated girl, sitting upright, and breathing in a noisy and remarkable manner, most distressing to witness and to hear. There was first a loud crying inspiration, preceded by three or four jerking attempts, also noisy, and then came a deep-toned expiration, the sound evidently produced by the vibrations of the soft palate. There appeared to be urgent dyspnœa, and the countenance of the child was expressive of the deepest misery. These respirations followed each other with great regularity, and had persisted since the night of the 22nd of May, when she woke up and began this form of breathing, which had never since ceased except during sleep. She had been hard worked at school, and had had mental excitement in preparation for her first communion. There was no

disease of heart or lungs, and examination of the throat showed only the vibrations of the palate. Professor Wagner placed his fingers in the mouth and pressed down the jaw, and at the same time commanded her firmly to try and breathe quietly, which she did in a few minutes, and took water and told her name. In remarking on the case, he said that it could not be brought into the category of any known form of dyspnœa, and was probably an unusual manifestation of hysteria. From the loss of sleep and inability to take food the child had become greatly emaciated.

The Treatment of Sprain by the Elastic Bandage.—This method of treating sprains has recently been recommended by Marc See. It is the only method which fulfils the two indications:

1. To cause as rapid absorption as possible of the blood extravasated around the joint (a lesion which controls all the other symptoms, such as pain, swelling, difficulty of movement, etc.); and,

2. To favor cicatrization of the torn ligaments and ruptured parts by complete immobilization.

The antiphlogistics and bloodletting, formerly advised by Hunter and Guersant, only partially fulfil the former indication. There is the same objection to the movements which Ribe and Bonnet advise for the injured joint. The refrigerants and cold-water baths advised by Baudens cause contraction of the tissues around the joint, and dispel the inflammation, but they are not favorable to the absorption of the infiltrated fluids. Even massage, though superior to the other remedies just mentioned, fulfils only the second indication; furthermore, it is inconvenient, and requires much patience and time; and between the séances of manipulation the swelling reappears and the pain returns. It is true that massage has the advantage of removing the extravasated materials from the region of the joint toward the more vascular portions of the limb, where they are more easily absorbed. But the elastic bandage has this advantage in a greater degree, since its action is continuous. Finally, and above all, it favors immobilization of the joint, which is impossible during massage, and without which it is almost impossible to get cicatrization of the torn structures and complete recovery in sprains of any intensity. The bandage should be applied to the skin itself, care being taken to fill up the flat and depressed places with wadding, so as to give a uniform surface around the joint for the bandage to act upon.—*Revue de Thérap.*, July 15, 1886, *News*, Aug. 16.

A New, Successful, and Palatable Medicine for the Treatment of Tape-Worm.—Under the above title Dr. Howard Pinkney, writing from Sharon Springs, describes his experience with the oil of the pine needle, made from the *pinus punilio*. A hall-boy of the hotel had suffered for five years from tape-worm. He had been treated for four years in New York, but never had succeeded in getting rid of over four feet of links at a time. Dr. Pinkney not being able to get any male fern, pelletierine, or pumpkin seeds, therefore tried the following experiment: "The patient fasted from breakfast, and at 9 P. M. he was given one teaspoonful of oil of the pine needle in half a glass of milk. The following morning, as there was no perceptible action of the medicine, the dose was doubled. This, the boy said, had a most agreeable taste. One hour later he took a dose of castor oil, and in the course of two hours after this he passed an entire tænia solium measuring 15 feet 6 inches in length and one-half inch at its broadest part, gradually tapering down to almost a thread. To be positive that none remained behind, he was given two teaspoonfuls more, but no sign of any worm or part thereof passed. This oil," writes Dr. Pinkney, "contains no turpentine, is fragrant in its odor, and when mixed with milk very agreeable to the taste. It produces no strangury, tenesmus, or other unpleasant or distressing symptoms. The patient can generally pursue his ordinary avocation." Our correspondent would be pleased to know if any of our readers have ever read or known of its use in similar cases.—*Medical Record.*

Outward Rotation of Lower Extremities, Heels Pointing Forward. Development of Complete Control.—*Hill* in *British Medical Journal.*

A female child, six and a half months old, had the following deformities: The right biceps cubiti could only be extended to such an extent as to leave the elbow at an angle of 145°. The left was also slightly shortened. There was no nail on either

thumb, the paternal grandfather and father having none. The lower limbs were so everted at the hips that the heels looked directly forward. The child could rotate them with help and flex the thighs upon the abdomen. There was no dislocation of the hips. There was no perceptible deformity of the articular surfaces of the tibia or femur. Flexion of the knee was natural, but the joint could be extended beyond the straight line until the toes touched the abdomen. The toes could touch the outer side of the leg, while flexion of the ankle-joint was very limited. A pelvic band, with outside irons jointed at the hips, knees and ankles, was applied. A month afterward the tendines achillis were cut. After the lapse of two years, all instruments were discarded. When she was six years and a half old, she could run, hop and jump, and had complete control over her limbs.

The deformity was due partly to defective structure of the knee joints, the crucial ligaments being only partially developed, as well as the ligament of the patellæ, and partially to faulty position of the child while in utero.—*Archives of Pediatrics.*

Thuya Occidentalis in Cancer of the Uterus.—The tincture of thuya occidentalis has been praised at different times as an efficacious remedy for rebellious condylomata, venereal growths, etc. It has also given excellent results in cases of simple chancre.

Four years ago, J. Cheron, who had used the drug for a long time, was particularly struck by an inaugural *Thèse* by M. J. Menier. The treatment of vegetations by the internal administration of thuya occidentalis had given results which in his hands were absolutely conclusive. Cheron repeated Menier's experiments, and though he did not get such remarkable results, the curative action of the tincture in vegetations was equally well demonstrated. He found that vegetations covered with epidermis, especially those which have a semi-corneal consistence, are not affected by the internal administration of thuya, so far as their disappearance is concerned; though they do diminish in size and consistence. Vegetations developed on mucous membranes, however, disappear completely when thuya is given internally; this has been abundantly shown in a great number of cases. In a word, the epithelial hyperplasias of the vegetations yield to the internal employment of thuya, while the epidermic hyperplasias do not. As regards the use of thuya in epithelioma of the cervix, Cheron's experience with it, which has extended over several years, leads him to say that in a certain number of cases he uses the tincture internally only; in a second class he uses it externally only; and in the third class he uses it both externally and internally.—*Revue de Thèrap.*, July 15, 1884, *Med. News*, August 16.

Diet in Tuberculosis.—In the *Berliner Klin. Wochenschrift*, Dr. Bidder, of Berlin, concludes three articles on the relation between the alkalies of the food and the etiology of tuberculosis, by advocating a diet as free from potash salts as possible, but rich in common salt, as being a soda salt. He argues that the latter renders the tissues unfavorable to the development of the bacilli of tubercle, and that in young patients with tuberculous processes going on in the bones, joints, glands, lungs, etc., half a gram to one gram of common salt should be given three or four times daily with the food, according to age. If dislike to this be shown, benzoate of soda may be substituted in doses of three to seven and a half grains. Indeed, the latter salt (known to be useful in the summer diarrhea of children) is highly relished; it is aromatic in taste and increases the appetite. Bidder thinks, moreover, that the well-known injurious influence of iodide of potassium upon tuberculosis or scrofulous processes is probably due not to the iodine but to the potash, which is replaced by soda in the stomach. The diet should contain an excess of albumen, of fat, and of salt in the cases mentioned. The article concludes by a reference to rickets, in which a connection with tuberculosis is attempted to be proved. Rickets is said to be due to an excess of potash salts in the food as one cause of it. —*Amer. Practitioner.*

Apomorphia as an Emetic.—If the reader will reflect for a moment, he will understand the value of such a remedy as apomorphia—a remedy that will cause prompt and rapid emesis when injected subcutaneously. Routh reports two cases that demonstrate its action very nicely. The first case was one of oxalic acid poison-

ing; the patient, when found, was already dying; the hands were clenched; froth and blood was oozing from her mouth, and respiration apparently had ceased. The pulse was barely perceptible. She had not vomited. 0.004 gramme (gr. $\frac{1}{15}$) of apomorphia was now injected subcutaneously, and in 2½ minutes the contents of the stomach were suddenly and forcibly ejected; the pulse became perceptible, but soon ceased entirely. The second case was of a woman found in a comatose condition, evidently due to spirits, since she was in the habit of taking large quantities of brandy. She could not be aroused. The pupils were dilated, pulse was intermittent, respiration stertorous, and the stomach full of fluid. 0.004 gramme of apomorphia was injected under the skin. The effect was to cause the emesis of one pint of alcoholic fluid in the course of 3½ minutes, and in the course of 5 minutes more almost a quart of pure brandy was ejected. Pulse and respiration began to improve rapidly, and in 12 hours the patient awoke and felt good.

According to Routh, apomorphia does not excite vomiting during chloroform narcosis.—*Pharmaceutisch Post, Ther. Gaz.* August 15.

Uterus Perforated by the Serrated Spoon: Death.—At the New York Pathological Society was reported a case of submucous fibroid of the fundus uteri, the removal of which was attempted by an instrument heretofore considered safe, the serrated scoop. Great difficulty being experienced in inserting the spoon between the growth and the inner surface of the uterus, scissors were resorted to and the tumor cut away piecemeal. In this instance the fundus was perforated and caused intraperitoneal hæmorrhage, and the woman died in twelve hours. At the autopsy the fundus and also the posterior uterine wall were found perforated. The operator was unaware at the moment of penetration that he had gone beyond the base of the tumor. Two similar cases had occurred in the hands of Dr. Thomas and Dr. Hunter, both patients dying.—*New York Medical Journal, Gaillard's Journal.*

Irreducible Hernia Cured by Sneezing.—Dr. John Burke, of this city, sends us the history of a man, aged sixty, who had suffered for several years from an irreducible left inguinal hernia. Several surgeons had tried to get it back, but in vain, and the tumor became as large as a child's head. One night he was attacked with a fit of coughing and sneezing, which continued about half an hour, according to his own and wife's report, when he felt something give way within him. He heard a gurgling and the hernia had disappeared. In the morning he sent for Dr. Burke who found that the mass had gone. The ring was as large as a silver dollar. There was great pain and tenderness about the parts and he had local peritonitis. After a few days he recovered. He since has been fitted with a truss and the hernia has not come down. Dr. Burke concludes: "Would it not be well in some of these cases to give the patient a good pinch of hellebore to bring on sneezing? Perhaps it may tear away the adhesions and cause the gut to return. I would ask your readers if they ever met a case of hernia reduced in that manner."—*Medical Record.*

A Practical Point in the Treatment of Pleural Effusions.—Dr. Broadbent, (*Lancet*) in a clinical lecture, says that when he hears distinct bronchial breathing generally over the chest in cases of pleural effusions, he feels sure that a consolidated lung is immersed in the fluid, and he consequently does not tap unless the symptoms are so urgent as to demand interference. A solidified lung cannot, of course, expand, as does one which is simply collapsed or even compressed, unless it is bound down by adhesions; and experience has shown him that on the resolution of the pneumonia the fluid is usually rapidly absorbed.

He seems to hold the sound views that with grave symptoms a pleural effusion should be withdrawn, whatever the complication; that the course of moderate effusion may often be shortened by tapping; but that, if the lung be consolidated—one evidence of which is the persistence of bronchial respiration over the whole or a large part of the chest—it is better to wait, if the condition of the patient warrants such a course.—*Boston Medical and Surgical Journal.*

Extirpation of the Lungs.—*Biondi* reports the results of numerous experiments made on sheep, dogs and cats. Partial extirpation, and amongst others that of both

apices, were all followed by cure; total extirpation of one lung was successful in more than fifty per cent. of the cases. and several deaths seem to have been due more to some imperfection in the antiseptic dressing than to the operation itself.—*London Med. Record, July* 1884.

Medical Items.

Dr. Cohnheim,the late Professor of General Pathology and Pathological Anatomy at Leipzig, whose death has been recently announced, was one of the most widely known of the great men whom the German school has produced. His discovery of the migration of the white blood corpuscle through the walls of capillary vessels is his chief title to fame.=*The Lond. Med. Times* suggests that the Royal College of Surgeons should use the fund left by Sir Erasmus Wilson,amounting to £180,000, for the purpose of establishing a pathological institute on a scale worthy of the scientific reputation of the English school. =Professor Dr. Braun, of Heidelberg, has received a call to Jena as Professor of Surgery. The Chair of Physiology at Königsberg, rendered vacant by the resignation of Professor v. Wittich, is to be filled by Professor Hermann, of Zurich.=Dr. Robt. E. Rogers, late Professor of Chemistry in Jefferson Medical College, Philadelphia, died in that city on the 6th inst. He was born in Baltimore in 1814. He had held positions in the Universities of Virginia and Pennsylvania. He was the son of Dr. P. K. Rogers, of Philadelphia, and was one of several brothers distinguished for their scientific attainments.=M. Burq, the well-known metallotherapeutist, died recently at the age of 60.=During the recent summer session at the Vienna University, there were 1892 students.=Sir Thos. Elder has given $50,000 to help found a school of medicine at the University of Adelaide, Australia. This gift has been supplemented by another donor with $30-000.=It is estimated that there are 2,400 female physicians in the United States. Of this number not over 1,000 are graduates of recognized medical colleges.—*Brit. Med. Journ.*=According to Oliver Wendell Holmes, the following would represent the magnifying power of the microscopes now used in histological research: A man of ordinary stature enlarged in the same proportion throughout would measure just one mile in height, ten times overtopping the loftiest of the pyramids and twenty times the tallest church spires, and his weight would be sixty million tons.

Changes in the Stations and Duties of Officers Serving in the Medical Department U. S. Army, from Sept. 2, 1884, to Sept. 9, 1884:

Byrne, Charles C., Major and Surgeon, relieved from duty in Department of California and to report in person to the Commanding General Department of the Platte for assignment to duty. S. O. 207, A. G. O., Sept. 3, 1884.

Town, F. L., Major and Surgeon, relieved from duty in Department of the Columbia and to report in person to Commanding General Department of Texas for assignment to duty. S. O. 207, C. S., A. G. O. Granted leave of absence for twenty-five days. S. O. 127, Department of the Columbia, Aug. 25, 1884.

Havard, Valery, Captain and Assistant Surgeon, relieved from duty in Department of Texas and to report to the Commanding General Department of the East for assignment to duty. S. O. 207, C. S., A. G. O.

Hall, Wm. R., Captain and Assistant Surgeon, relieved from duty in Department of Texas and to report in person on October 1, 1884, to the Superintendent General recruiting service in New York City, for duty at David's Island, N. Y., relieving Assistant Surgeon M. E. Taylor from duty at that station. S. O., 207, C. S., A. G. O.

Hopkins, Wm. E., First Lieutenant and Assistant Surgeon. The leave of absence granted him in S. O. 67, Aug. 7, 1884, Department of Arizona, is extended one month. S. O. 204, A. G. O., Aug. 30, 1884.

List of Official Changes in the Medical Corps of the U. S. Navy for the week ending Sept. 6, 1884:

Passed Assistant Surgeon P. M. Rixey from special duty at Washington, D. C., September 8, and to the Lancaster, European Squadron.

Surgeon A. S. Oberly from the Richmond, Aug. 30, and wait orders.

Passed Assistant Surgeon S. H. Dickson from Asiatic Squadron, July 29. Sick leave Aug. 30, 1884.

Clinical Lecture.

VERTIGO.

A CLINICAL LECTURE DELIVERED AT THE PHILADELPHIA HOSPITAL.

BY CHARLES K. MILLS, M. D.,

Professor of Diseases of the Mind and Nervous System, in the Philadelphia Polyclinic, and Neurologist to the Philadelphia Hospital.

REPORTED BY WILLIAM H. MORRISON, M. D.

GENTLEMEN:—This man, E. C., is 73 years of age and a weaver by occupation. When young he was troubled much with headache, but this passed away as he got older. Headache began to trouble him again, however, in 1865, as he was serving as night watchman in Washington. Since that time he has also noticed a humming noise in the ear, which he compares to the singing of grasshoppers and insects. He has also partially lost the hearing of the right ear. In cold weather the humming is more marked than in warm weather, but it never disappears entirely. He has it when he goes to bed at night and he has it on rising in the morning. He has never had any discharge from the ears. At times he has dizzy spells and would fall over if he could not grasp something. The humming is not worse at these times. The attacks of vertigo come on at irregular intervals, sometimes every day, at other times two or three times a week. They are always worse in cold weather. They are not worse in the mornings, and he does not have them on rising from the bed in the morning. He occasionally has pain in the side and sick stomach, but the attacks of giddiness are not associated with the trouble in the stomach. When he has the spells of vertigo, things often get dim before the eyes and have a green color. He states that the things around him seem to move while he remains still. The tendency to fall is in a forward direction. As he walks across the floor, you see that to-day he walks pretty steadily.

The next patient is a colored man, C. H. As you see, he is demented and we can obtain but little information from him. He states that he has "the royal" for one thing. Sometimes he cannot hear. When he gets "all wrong" he cannot hear anything for ten or fifteen minutes. He has "the royal" in his ears. His head swims at times. He has had syphilis.

This woman, C. M., is about 70 years of age and also slightly demented. She complains of a buzzing in the ears and when she walks feels as though she was drunk. She staggers, but never falls.

J. M. is 51 years old and has been in the hospital seven years. Thirteen years ago, while working at a gas-works in Washington, he suffered from some form of heat-stroke. Since then he has had attacks of dizziness and feels as though he were falling. This is especially marked on going up-stairs. Sometimes his head goes around and things get black before him. When his eyes are shut, or when they are directed upwards, he has a tendency to sway and he has a feeling of staggering all the time.

Many persons suffer from certain phenomena which are at their root disturbances of equilibrium. In these wards are any number of cases in which vertigo is a prominent symptom, and in the practical pursuit of your profession many patients will come to you complaining of vertigo, dizziness or swimming of the head. It sometimes becomes important to study such cases from the standpoint of symptoms.

In the cases before you this morning the only prominent symptom which has been developed by the investigation has been this disturbance of equilibration which is spoken of as vertigo. This may be due to so many causes that the physician may at first be in a perfect mist when a patient complains of this condition. The study of nervous disease is not like surgery, or like the practice of medicine in some other branches, where you have something objective to put your hands on, something that can be got at with instruments of precision or with your hands, eyes or ears. This is one reason why so much discouragement arises among students and young practitioners in the study of diseases of the nervous system.

In order to obtain any satisfactory results from the study of these cases of vertigo, it is necessary to have constantly in your mind some idea of what is at the root of vertigo. You cannot diagnosticate these cases in any other way. You may jump at the conclusion that it is due to this, that or the other thing, but you can have no definite idea of cause without studying the case in the most careful, analytical manner.

Having a few tangible points, you may, perhaps, by some process of reasoning, come to a conclusion as to what is the matter.

A man holds his position firmly on his feet in standing or walking, and on sitting down, retains the feeling of equilibrium, through various processes. In the first place, as you know from your elementary physiological studies, through the sense of sight, the sense of hearing, the tactile sense and what is called the muscular sense; we may also, as suggested by Crum Brown, have a special sense of rotation, or, as Cyon supposes, a sense of space. This sense of rotation, if it exists, has its peripheral organ in the labyrinth, its centre in the pons-medulla region or cerebellum, and the auditory nerve as its connecting sensory tract. No matter what the case may be, the vertigo is due to some disturbance of these organs or parts directly or indirectly. You also know that if the semi-circular canals are affected as the result of disease, or cut in a physiological experiment, vertiginous sensations or staggering movements are produced.

In order that a person shall be in equilibrium, it is necessary that the circulation of the blood through the brain and the condition of the lymph spaces or rather of the cerebro-spinal spaces in general, must be such as to keep up a proper balance of pressure in the skull. Otherwise, some of the centres or parts concerned with equilibrium may be disturbed.

Taking this first case we have little to guide us. About twenty years ago, this man began to have humming noises in the ears. These have continued ever since, and if anything he is getting worse. He also has some impairment of the hearing in the right ear. For a time he will be free from the vertiginous spells and then he will have them as often as twice or thrice a week, or as often in a day. If he is affected with cold this sensation is more apt to come on. He is an old man. He has no disturbance of digestion, and we are by force pinned down to his age, the condition of the blood vessels, or to some local disturbance of the organs of hearing and of eqiulibrium. Vertigo is frequently associated with tinnitus aurium; sometimes the latter is present in one ear and sometimes in both. The probable explanation of this case is that there is some chronic thickening of the membranous portion of the internal ear, and with it, perhaps, a catarrhal condition of the Eustachian tube or associated parts, and that the reflex irritation excited by these conditions gives rise to the vertigo. The fact that it is affected by changes of temperature and depressed conditions of the system simply shows that the brain can resist this reflex irritation when the circulation is in the very best condition. This man illustrates a common form of tinnitus and vertigo without marked disease of the brain. His advancing years may add to the trouble by the changes in the calibre of the blood vessels.

A case of this kind, although it will not entirely recover, may greatly improve under treatment and the tinnitus remain away.

The colored man suffers from deafness, roaring, and vertigo. Some physicians call all such cases examples of Menière's disease. Those familiar with the writings of Dean Swift know that he frequently refers to certain peculiar attacks of dizziness and distress, from which he suffered. Recently Bucknill has gone over this subject, and concludes that in all probability Swift suffered from Menière's disease. The disease described by Menière is an "affection characterized by deafness, tinnitus, and attacks of vertigo, ordinarily accompanied by grave disorders of equilibrium, a state of syncope, and by nausea and vomiting. The lesion is in the labyrinth, and is congestive, inflammatory or traumatic." (*De la Maladie de Menière.* Par le Dr. E. Voury, Paris, 1874). This man may have destructive labyrinthine disease, but certainly that fact cannot be clearly made out. Neither syncope, nausea nor vomiting seems to be present. We can simply conjecture that he has disease, probably syphilitic, of the internal auditory apparatus, in association with syphilitic disease of the brain, which has caused his dementia. He has a history of syphilis.

If water is thrown into the ear or the Eustachian catheter introduced, vertiginous attacks may be produced, but whether there is disease of the brain, or of the internal auditory meatus, or of the membranes, whenever the affection is not of the centres of equilibrium, it is evidently the reflex irritation, which is carried back to the centres which causes the disturbance. It is on the same principle as the stomach cases, in so-called gastric vertigo. This is

the form which has been described so ably by Trousseau. As a result of temporary disorder of the stomach, or a persistent condition of the stomach with temporary special disturbances, the patient will have violent attacks of vertigo, extending even to loss of sight, falling and apparent unconsciousness. These cases are unquestionably due to reflex irritation conveyed by the branches of the vagus from the stomach to the brain. In this case you have similar conveyance of irritation from peripheral parts to the auditory centres, but being advanced in years, the trouble is more persistent.

Certain conditions of the brain in the aged, independently of ear troubles, may produce vertigo. These may complicate this case. I will refer to this woman as probably an example of some of these conditions. In addition to being aged, she is slightly demented and affected with these vertiginous sensations. This is not a typical case of what is termed technically senile dementia, but still a case of senile loss of brain power. In general terms, in these cases a blood vessel degeneration is present, a senile atheromatous change, and a tendency also to wasting of the brain. It is rare to have in such cases general progressive and widespread cerebral softening. Instead, often in making post-mortem examination in the aged, the brain will be found to be firm and if anything somewhat smaller than natural; and there will be considerable œdema between the brain and pia mater. In other words, the brain has shrunk. The brain does not present any appearance of softening in the ordinary use of that term, no necrobiosis, no absolute destruction of tissue or at least none that is general. A peculiar kind of softening does occur in the brains of these aged people. If the blood vessels are examined they will be found to be rigid, their walls thick, and here and there in the brain the terminal vessels closed. So you may here see many scattered foci of softening. These little spots of softening may be almost microscopical. These are found more particularly deep in the white substance of the brain. In regard to the vertigo, which is so common in old people, especially when they change their position from lying to sitting or standing, or on attempting to walk, this may be due to the fact that owing to the change in the vessels equable circulation through the brain itself and irregular circulation means vertigo. In addition you may have, as I have just stated, an irregular atrophy or wasting of the brain, and as a consequence fluid takes the place of the wasted brain in order that the skull may be full. Here another cause is at work, in addition to the condition of the blood vessels which compel an imperfect and irregular distribution of the blood.

These patients and others who are not aged who have vertigo, semetimes have spells of dizziness on rising suddenly. I have no doubt that you have been taught that vertigo coming on in this way and disappearing in a short time is a diagnostic sign of cerebral anæmia. This vertigo may affect those who do not suffer from cerebral anæmia. A person in health may have vertigo if he suddenly rises from a recumbent to an erect position.

A French writer has recently made some experiments on the cadaver, and has come to some interesting conclusions, which may explain some of these cases. He believes, and has proved as far as experiments on the cadaver are concerned, that the brain actually changes its position in the skull as the individual changes his position. It is commonly supposed that the brain is so thoroughly supported by the dura mater and the attachments of the large vessels, that it is immovably fixed in the cranium. It would, however, seem from these experiments that when the individual changes his position from the recumbent to the erect or the reverse, that the whole brain mass also changes its position. It does this in a comparatively slow manner. When a person suddenly changes his position this change of the brain mass takes place also, but out of physiological time, and hence vertigo is produced. Some persons on suddenly bending over, or on bending over and suddenly rising, become vertiginous. This cannot always be explained simply by changes in the circulation, but can be explained by the change of position of the brain. This would cause changes in the amounts of pressure in the semicircular canals. In some of these ways a number of the general phenomena of vertigo can be explained.

Let us now turn to the last man examined. He presents an ataxic condition, but not all the symptoms of locomotor ataxia. He has a distinct history of heat-

stroke of some kind which occurred thirteen years ago. In addition to the ataxic gait, he is subject to vertigo. How would a case of this kind be explained? Probably not by reflex irritation from the external or internal auditory apparatus, nor irritation of the stomach, nor anæmia, nor any change in the brain mass, nor any peculiarity of the blood vessels causing irregular circulation. What does heat-stroke produce? In some cases at least it sets up disease of the membranes of the brain, a chronic meningitis, a pachymeningitis it may be, or a meningitis of the inner membranes. This is another thing to be looked into, and it shows how broad this whole subject of vertigo is. Meningitis, and particularly pachymeningitis, is one of the causes of vertigo. In internal pachymeningitis, which occurs independently of sun-stroke, vertigo is sometimes a prominent symptom. In the dura mater are distributed various branches of the trigeminal nerve, and just as pain in the head or vomiting is caused by disease of the dura mater, so vertigo may be produced by the same disease, and in a similar way. Probably seven or eight cases out of every ten of intense pain in the head are due to involvement of the dura mater. The same is true of vomiting of intra-cranial origin. Likewise many of these cases of vertigo are due to involvement of the dura mater. The irritation of the terminal branches of the trigeminal nerve is conveyed back to the pons and medulla, where the trigeminal nerve has a wide distribution, and thus the whole reflex is perfectly clear. From the history of this case it is probably explainable by this view.

One form of vertigo, often met with in private practice, but of which I have no illustration to-day, is due to lithæmia, a condition of the blood allied to that found in gout.

The treatment of vertigo must, of course, be based upon a study of its causes. You must get at the root of the matter in order to do any good. If there is an anæmic condition, the treatment should consist in the use of iron. In many aged patients, treatment of this kind is of advantage in connection with other tonics.

When vertigo is lithæmic you can give citrate of lithium, sometimes a little colchicum, the alkaline mineral waters, a restricted diet and a proper amount of exercise. You will see cases of supposed Menière's disease in which the symptoms will disappear under treatment directed to the lithæmic condition.

In cases like the first or second patient, a good empirical treatment is the use of quinine and iodide of potassium. This is Charcot's treatment. From four to six grains of quinine are given at a dose, and about twenty or thirty grains during the day. This is not to be used in lithæmic cases. Iodide of potassium may be associated with the quinine with advantage. Another empirical treatment which will sometimes be found of service in cases of vertigo and tinnitus, without definitely ascertained cause, is the administration of hydrobromic acid from one-half to one drachm being given freely diluted with water. This is especially useful in those cases with much tinnitus.

Still another plan of treatment in cases of uncertain origin is the use of moderately large doses of nux vomica. This may be useful even when there is organic disease. Mercury and iodide of potassium are, of course, called for when syphilis is present.

Translated Article.

ON EXTIRPATION OF THE KIDNEYS.

ABSTRACT OF A RECENT LECTURE BY PROF. BILLROTH, OF VIENNA.

Translated from Wiener Medizinische Wochenschrift, Nos. 23, 24, and 25, 1884,

BY R. WINSLOW, M. D.

Although I hold it to be not at all the duty of a teacher of surgery to perform every new operation or method of dressing wounds, which are recommended here and there in current literature, and which usually disappear about as fast as they come, nevertheless many of these assume in the course of time such a solid shape that it is necessary to take notice of them; as, for instance, extirpation of the kidney, about which I wish to speak to-day. For a very long time have we learned from post-mortem examinations that it is possible for a human being to live with only one kidney; also has it been clearly shown by the physiologists that extirpation of one kidney from the larger animals could be recovered from. Fifteen years ago Simon dared to apply

this experience to the relief of suffering humanity. Always will it be considered a fortunate circumstance that the first extirpation of the human kidney succeeded, for the certainty of overcoming the great difficulties with which the treatment of large wound cavities is associated was possessed then in no manner in the same degree as it is to-day. The progress of antiseptic wound treatment has also mightily promoted the success of extirpation of kidney. The difficulty of making an exact prognosis directly for this operation can scarcely ever be quite avoided; the possibility of success indeed always presupposes the complete functional activity of the remaining kidney. Here is the weak point in the correct determination of the indications and prognosis for nephrectomy, for a moderate degree of sepsis can be overcome without difficulty by the organism when both kidneys are healthy, which would be fatal if only one kidney existed, and that one perhaps not entirely sound. Whoever has made many autopsies has certainly been impressed with the fact that disease of the kidney is seldom confined to one organ; and on that account the opportunity to perform extirpation is seldom presented. We received the first extirpation of the kidney rather as a curiosity, and few of us at that time expected that in fifteen years nearly 150 such operations would be reported. The operation is still too new to determine, even approximately, correct statistics in regard to it; quite independently of the fact that statistics from casually reported cases afford an entirely unsafe basis, if indeed any basis can be formed. The extirpation of the kidney is, besides, considered as a surgical procedure, much too many sided for a statistical summary, to have any prognostic worth for any given case. The difference between the difficulties of ovariotomy and hysterotomy is already so great that it is only by collecting cases of a like character from statistics that any help in the prognosis of single cases belonging to this or that category can be obtained. Much more does this hold good in nephrectomy; whether we remove a healthy kidney from the loin on account of an ureter-fistula, or a large or small neoplasm from the abdominal cavity or loin, is in technical respects, as much as in consideration of the accompanying hemorrhage and many other important circumstances, a great difference. One must further consider in all new operations that the surgeon, before the indications and methods are empirically determined, is justified in proceeding boldly only in such cases in which the disease is already very far advanced, and life otherwise threatens to be soon extinguished. The very worst cases, therefore, come first for operation, which, under all other circumstances, would soon be lost. Finally each new bold operation exercises a great attraction upon the public as well as upon physicians and surgeons. If I would operate upon all persons suffering from cancer of the stomach, who either of their own will, or by the direction of their physicans come to me, I would have performed this operation ten times as often as I have done, but I would myself have lost confidence in the propriety of the operation in appropriate cases, and would have prostituted the same in the eyes of my colleagues. So indeed are kidney extirpations often performed, which had better have been let alone; the technical difficulty exercises also in itself a certain charm, which is powerfully upheld in one way or another by the sincere desire to help even in the most doubtful cases, and by the continual entreaties of the sick for help or release from their tormenting suffering. The surgeon has indeed frequently to endure inward struggles and the more so, when he has placed himself before an undertaking, the solution of which is for the first time attempted. If one, as has often happened to me, sometimes for weeks observes incurable cases, it is comprehensible that he finally proceeds to the extreme, notwithstanding that only a weak ray of hope shines. The wailings and entreaties of the patients and their relatives: Help us! Save us! Do the utmost! moves us more and more the older we become. All these circumstances make it comprehensible why the first beginnings of the statistics of new operations can give no useful starting point for the prognostic and really curative signification of the same. However, we never dare under these circumstances to accept stetistics entirely without caution, but if, for example, the first 100 patients after a new operation should all recover or all die, that at least would signify something. Dr. Schustler has at my desire, by using a dissertation which was published in Dorpat by Dr. Hans Bolz, collected together the cases of extirpation of the kidney, which

have been published to the present time, which are indeed increasing almost weekly. The sum total of 132 operations in which the result is known is 62 deaths, 70 recoveries; the mortality being therefore about 47 per cent. These figures have, as previously remarked, absolutely no value for the prognosis of single cases. They show only that taken all in all, somewhat more than a moiety of patients do recover after removal of a kidney, and therefore from a statistical view extirpation of the kidney appears to be justifiable.

The technique of this operation with all its important details cannot be of interest to most of you, hence I will only make a few remarks thereupon in conclusion. The most important consideration in the clinical review of kidney extirpation is the arranging of the causes and diseases which up to this time have led to this operation, for by these is the success or failure of the same most essentially influenced. It appears to me self-evident, that in the clinical and prognostic review of the operation under discussion, we must except a category of cases which I may classify as accidental extirpations.

If we wish to include in this category all those cases in which a tumor has been extirpated, which was diagnosticated as an ovarian tumor or an uterine fibroma or something else, and revealed itself first at the end of the operation as a tumor of the kidney, this group of cases would indeed be pretty extensive. However, I will not go this far, but will insert here only those cases in which any tumor at the end of an operation has shown itself to be so firmly attached to a healthy kidney that it also must be removed, because it was impossible to arrest the severe hemorrhage from its lacerated surface. This has happened to several English surgeons, and also once to me. All these patients died of collapse or peritonitis. The extirpation of the kidney by laparotomy in these most difficult cases has exercised either no influence at all on the exitus, or only indirectly in so far that only one kidney remained for the removal of septic matter. If we consider now first of all the removal of a healthy kidney, three indications have been offered for the same up to the present time.

I. *Removal of a kidney prolapsed through the belly walls in consequence of a wound.* This has been done as far as I am aware three times by Brandt in Klausenburg, by Marvaud in Algiers, and by Cartwright in China, each time successfully. Two cases in which the kidney was removed by Rawdon in England and by Von Bruns in Tübingen, on account of stab and shot wounds, are also included in the statistics of Bolz, but belong in my opinion to a special category of kidney hemorrhage and suppuration, because the operation was performed after severe hemorrhage and suppuration had already taken place. To me personally similar cases have not yet appeared.

II. *The removal of a healthy kidney on account of an incurable ureter-fistula* was first performed by Simon. The cases which have been operated on, for a similar reason, are quite heterogeneous and group themselves afresh in three rows. Simon, Le Fort, of Paris, and I have each operated on one case on account of ureter-abdominal fistulæ, which were present in consequence of wounds (stab and operation wounds); Stark, of Danzig, and Bardenheuer, of Cologne, on account of ureter-vaginal fistula in carcinoma of the uterus and vagina; Zweifel, of Erlangen, Crédé, of Dresden, Czerny, of Heidelberg, and Stark, of London, on account of ureter-vaginal and ureter-uterine fistula. Altogether out of these nine operations, six recovered, two died in forty-eight hours from collapse, and my patient in eleven days from marasmus and anæmia, due to diseased condition of the remaining kidney.

(Here follows the report of a highly interesting personal case, many of the details of which are necessarily omitted by us. *Translator*):

Case I. A woman 40 years of age, upon whom Billroth performed double ovariotomy recovered from the operation, but two weeks later pain and swelling occurred near the anterior superior spinous process of the ilium, which was judged to be due to an abscess, but upon incising the tumer one-quarter liter of clear, apparently serous fluid escaped. Although this experience was new to the operator, he did not suspect the true nature of the trouble until several days had elapsed, when the distinctly urinous odor of the discharge showed the ureter to be obstructed, probably from being included in one of the deep ligatures, in consequence of which a urine sack had formed which opened externally. The ureter-ab-

dominal fistula flowed incessantly, as in the similar case of Simon. The suffering was intense, and something must be done, but what? He thought of extirpating the left kidney, but could not decide to submit a woman who had just recovered from one highly dangerous operation, immediately to the risks of another severe operation. Subsequently, about four weeks after the ovariotomy fever set in and an abscess discharged into the vagina. This caused the patient to run down very much, but she gradually improved. Thinking that the lower end of the ureter might be patent above, and in that case, closure of the fistula might be thought of, he asked Dr. Pawlik to undertake the task of sounding the ureters, in order to determine whether urine entered the bladder through the left ureter. After most painstaking examinations by Dr. Pawlik, it was proven that the right ureter was quite pervious, but the catheter could only be introduced a short distance into the left ureter, and no urine escaped through the catheter. The obstruction was probably due to a parametric exudation which had not been quite absorbed. If the urine was drawn off by a catheter which entirely filled the right ureter, and the bladder emptied, the instrument being allowed to remain in the ureter, after several hours urine was again found in the bladder, thus showing that the left ureter must also be pervious. Finally it became possible to push the catheter still farther into the left ureter, so that urine trickled out, but the catheter was strongly grasped and the ureter was also narrowed above. It was now attempted to dilate the ureter gradually by passing sounds, so that the urine could easily flow from the reservoir into the bladder; then the fistula could have been closed and a nephrectomy abstained from. Unfortunately the masterly efforts of Dr. Pawlik could not be continued on account of the occurrence of peritonitis, which brought the patient into extreme danger. This plan of treatment must be given up, and still the patient desired a radical cure of the fistula before going home. This could only be accomplished in the present state of our art by extirpation of the left kidney. The woman was much reduced in strength from long suffering, peritonitis, diarrhœa, etc. On March 3d, 1883, Billroth reluctantly proceeded to extirpate the kidney in the typical method by lumbar incision. The operation was finished in twenty-six minutes, but was complicated by an unfortunate accident, the laceration of the rotten pelvis of the kidney, whereby a lot of horribly stinking pus was poured into the wound. This made irrigation of the wound with three per cent. carbolic solution necessary, and prevented close suturing. Fearing a retroperitoneal abscess, the wound cavity was loosly packed with iodoform gauze after introducing two large drains to its bottom.

The hemorrhage was insignificant. The excised kidney was pale, its tissues loose, and the calices and pelvis dilated. The patient vomited for three days everything which she swallowed, but on the fourth day the vomiting ceased. But this slight improvement did not last, she became progressively weaker, lost appetite entirely and slept much. On the eighth day the iodoform gauze was removed; no peritonitis and but little secretion was present. The urine became a very dark olive green on the ninth day, notwithstanding no carbolic acid had been used since the operation. Unconsciousness gradually set in, and on the tenth night slight spasms of the extremities and face were observed. During the last twenty-four hours the urine secretion sank to a minimum. Autopsy—Right kidney very large, very pale, yellowish, soft and succulent, with broad spongy cortex, smooth superficies, capsule easily removed.

As the cause of death, nothing especial was found which added anything new to the pathological conditions already recognized during life. Death resulted, doubtless, from a combination of several circumstances; general debility and anæmia in consequence of long illness and defective nutrition; the remaining kidney not functioning actively enough to quickly excrete the absorbed drugs. Chloroform, urea, carbolic acid, iodoform and morphia worked together to destroy the vita parva of an organism which received no nourishment which was effective in making it strong and capable of resistance. It is probable that the result of this operation would have been more favorable if I had performed the operation earlier; I openly confess, however, that I always experience a certain hesitation in removing a healthy organ on account of an infirmity which, in itself, does not endanger life, unless it makes life unindurable. We should, therefore, on the

one hand, not cease to carefully search for the ureter, when we are operating in its neighborhood, in order to avoid its injury; and on the other hand not cease to meditate as to whether we could not cure these ureter-fistulæ without extirpating the kidney.

[*To be continued.*]

Society Reports.

BALTIMORE ACADEMY OF MEDICINE.

STATED MEETING, HELD MAY 20TH, 1884.*

(*Specially reported for Md. Med. Journal.*)

The society met about 9 P. M., Dr. McKew in the chair; later the President, Dr. Miles. Dr. F. Straughn, St. Paul Street extended, was proposed for membership.

A Case of Persistent Vomiting.—*Dr. Steuart* reported the following case: A lady, æt. 26, has constant vomiting and is running down in consequence very fast. Nothing stays on her stomach. She is also constipated. Castor oil, frozen, was given for the latter symptom and was retained and acted. The temperature is 102° constantly, pulse 110 to 115. She has an anxious look and says she is fearfully hungry. She takes much ice, but after a time this is followed by vomiting. A blister over the stomach was tried but had no effect. The simplest and the most varied sorts of food were alike rejected. Bile and mucus were also vomited, very ropy in character.

Dr. Uhler suggested the trial in this case of dry cold, which may be applied by means of a pan or rubber bottle filled with ice, a layer of flannel being interposed between the ice and the skin. The flannel prevents condensation on the skin, which soon renders the moist cold unpleasant. Recumbency should also be enforced. In a similar case occurring in a lady he injected hydrate of chloral with a little morphia into the rectum; as soon as she got very sleepy he gave nourishment, which she retained although she vomited some on awaking.

Dr. Browne referred to the case of an English lady who was supposed to be pregnant on account of persisting nausea and amenorrhœa. In consequence of the protracted vomiting she was very much emaciated and it was doubtful whether she could reach England alive. Her cervix had been incised and a cicatrix had formed at the site of the incision. Dr. B. having satisfied himself that pregnancy did not exist dilated the cervix. Two weeks later the nausea stopped. As soon as she was assured that she could return to England she began to get better and she soon set out on the journey.

Dr. T. F. Murdoch had a case which was diagnosed as gastric ulcer, the chief symptoms being vomiting of blood and epigastric pain. The vomiting ceased in a few days under the use of drop doses, three times a day, of Fowler's solution.

Dr. Taneyhill said it was well known that this drug was one of the best remedies in the morning vomiting of drunkards. He had found it very reliable. Referred to the case of a gentleman who had been vomiting for six weeks. He was emaciated, jaundiced and weak. He was supposed to have cancer of the pylorus. His vomiting was controlled by keeping him on his back and by administering repeated hot water enemata. He was relieved and free from nausea for four or five hours after each enema. Small doses of milk were given simultaneously. He subsequently went under the care of another physician and died in ten days.

The President said that he had constantly applied hot water and mustard over the spine between the shoulders to stop vomiting.

Epistaxis Coinciding with Menstruation and Persisting after its Cessation.—*Dr. Chisolm* reported the case of a lady who for twenty years had had nasal hemorrhage in connection with her menstrual periods. Now the latter have ceased (menopause) but the former continues.

Urethral Polypus in a Female.—*Dr. Ashby* mentioned the case of an old lady who had sudden stoppage of urine whenever she micturated. Passed a sound but detected nothing; on withdrawing it, however, it brought out a small polypus, which had acted as a valve obstructing the flow of urine.

Tupelo Tent Retained Nine Days in a Pregnant Uterus Without Producing Abortion.—*Dr. McKew* exhibited a tupelo tent which had been in the uterus for nine

*There was no meeting April 15th or May 6th.

days without giving rise to any symptom whatever. Dr. M. was called in May 16th to see a lady, æt. 30, married twelve years and the mother of three children, the youngest 6 years old. Two years ago she miscarried and had a terrible hemorrhage. She had menstruated last on the 4th of March, missing her periods of April 1st and 29th. Dr. McKew was informed that she had introduced a tent into the uterus on the 9th inst. with the design of producing an abortion, but that no result had so far ensued, and the tent still remained in utero. There was, however, no pain, discharge or hemorrhage or other symptom such as we would expect under the circumstances. A friend had told her of the expedient, in which she had succeeded only after the third attempt. On the next day she was "taken unwell;" the flow, which was not great, lasted five days. There was no pain at any time. Seven days after the introduction of the tent she rode to the park and walked about there. Nothing was felt on digital examination. On introducing a speculum the cervix appeared patulous and congested; the os was raw and a purulent discharge issued from it. The sound passed in $3\frac{1}{2}$ inches without recognizing the tent because it passed along the side of the tent. The latter could be felt, however, with the finger-nail. The cervix was then drawn down with a tenaculum, a forceps introduced and the tent was then removed without difficulty. The tent was $2\frac{7}{8}$ inches long and was $\frac{1}{2}$ inch within the os. Saw no traces of a fœtus. Dr. White, of Buffalo, reported a case in which a portion of a sponge-tent remained in the uterus several months.

Dr. Ashby thought the pregnant condition of the uterus rendered it tolerant. He referred to a lady who introduced a knitting needle into the uterus frequently in order to produce abortion; also to another who slid down bannisters head foremost and a third who climbed up to the tower of the City Hall whenever she went two or three weeks over her time, and had thus several times effected her object.

Hiccough Persisting for Five Months. —*The President* reported the following case: A gentleman has suffered from hiccough persisting except when asleep almost uninterruptedly for five months. There is great tenderness over the abdomen especially in the region of the liver. The patient eats and sleeps well, only suffering from the exhaustion consequent upon the hiccough. The attack commenced with unconsciousness and a fall; he recovered consciousness without any evidences of paralysis, and three days afterwards the hiccough set in. The application of the interrupted current, one electrode being applied to the abdomen and the other over the region of the phrenic nerve, produced momentary arrest but failed when employed a second time. There seemed to be some central trouble in the case. Numerous remedies had been employed, among others the application of hot sponges over the back of the neck and along the course of the nerves, from which the phrenic arises. Iodide of potash was employed empirically, and cauterization to the back of the neck was advised. Erb says that some of these cases are connected with prostatic trouble.

Dr. Ashby spoke of the case of a negro who was stabbed through the diaphragm, the stomach escaping, and who hiccoughed for five days. He eventually recovered.

The President referred to a case of cancer of the stomach, in which the patient had a hiccough for a week. Anything which irritates the diaphragm will occasion it.

A Case of Morbus Hypnoticus.—*The President* reported the case of a man, æt. 45, who constantly fell asleep. He could be aroused but immediately lapsed again into slumber. He had had similar symptoms a year ago, and had also had an epileptic attack. His children appeared to be healthy. Dr. M. found him with a fixed look. He roused sufficiently to answer questions, then the look returned. There was continual twitching of the eyelids. He roused up like a person awakening from sleep and in a moment was asleep again. He roused up to take nourishment but his wife had to keep him continually aroused during the meal. There was very little urine passed. These symptoms continued for several weeks. The patient had not been seen for some weeks, but at the last visit his somnolency seemed to be deepening into coma. He had no catalepsy. Syphilis was suspected and mercury given with some apparent temporary benefit. There was no albuminuria; the urine was not examined for tube casts. The pulse was regular and the movements were normal when he was awake. He several times complained of pain about the loins and in

one or two other parts of the body. His evacuations were voluntary.

Dr. Van Bibber spoke of the case of a gentleman of Baltimore, who constantly fell asleep, even when sitting at the table. He was not very old. He finally passed away in one of the attacks.

Dr. Steuart referred to a gentleman and lady in prominent social circles who go to sleep anywhere; the sleep lasts a minute or two, when they awake and continue the conversation.

The President said his patient did not evince the deep breathing of sleep. His manner was somewhat as though he thought "I didn't send for you and don't intend to take any notice of you." There was no change in his pupils, no rolling up of the eyes. On being roused up he seemed slightly startled or surprised.

Dr. Van Bibber said this condition was not uncommon. He could recall a good many cases of a similar character, among others the widow of a prominent surgeon of Philadelphia, who for many years was so affected.

Ptosis Rapidly Relieved by Specific Treatment.—*Dr. Chisolm* reported the case of a lady who had applied to him for treatment about three months ago with very annoying double vision. She had ptosis and paralysis of the third nerve of the right eye. There was no specific history; she had a large family of healthy children and was in good circumstances. According to her account she was attacked with violent headache, nausea and vomiting, and her lid fell as a result of that. She was put upon iodide of potash and mercury and in six weeks the symptoms had entirely disappeared. Had never seen so rapid a cure. A few days ago there was a recurrence of the vomiting and reappearance of the eye symptoms, but the treatment was resumed and she is now again rapidly improving. It looked as though there had been a hemorrhage into the sheath of the nerve. There is no intra-cranial trouble.

Seton on the Knee for Post-Nasal Catarrh and Defective Hearing.—*Dr. Chisolm* reported the case of a lady suffering with defective hearing apparently in consequence of post-nasal catarrh, which she had suffered from in early life. Her attendant applied a seton over her knee, which she had carried for twelve years and imagined that it had benefitted her.

Dr. Uhler exhibited models of instruments designed by him for the removal of tumors. (The same had been exhibited at the meeting of the Amer. Med.. Asso'n in Washington and described in the journals at that time).

After adopting resolutions upon the death of Dr. J. Robert Ward, a lately deceased member, the Academy adjourned.

Editorial.

Typho-Malarial Fever.—The name typho-malarial fever was first suggested by Dr. J. J. Woodward, of the U. S. Army, recently deceased, to describe a group of cases, observed during the late war among the soldiers of the Army of the Potomac, in which the morbid complexus of typhoid fever was modified by a malarial complication. The name was subsequently adopted by a Board of Medical Officers convened in Washington in the summer of 1862 to propose a system of reports for the preparation of the Medical History of the War of the Rebellion, and was made official. The term originally designed for convenience came to be regarded as the exponent of a pathological condition. From that day to the present time a malady compounded of the typhoid and malarial disease has been recognized and treated by the majority of medical practitioners. The new disease has been described as having a composite character, or as a "new hybrid"—a cross between typhoid and malarial fever. This disease was believed by many to be a special type of fever, whilst other observers held that the morbid anatomy of typhoid remained always the same and was not modified as claimed. Dr. Roberts Bartholow was the first writer to oppose the claim advanced by Dr. Woodward in favor of the specific character of the typho-malarial disease. In a recent article (*Med. News*, Sept. 13, 1884), Dr. Bartholow reviews the position maintained by him as early as 1867, in which he claimed that Dr. Woodward was in error in supposing that the morbid anatomy of typhoid fever presented any peculiar features in consequence of a malarial complication.

Dr. Bartholow maintained that typhoid is the fever of old, of cultivated countries and dense populations; malarial of new countries and sparse populations; that as

populations increase, typhoid supplants malarial fevers and during the transition period the mixed fever prevails. Dr. Woodward ten years later retracted the opinion he had at one time expressed and admitted that there is really nothing in the lesions of Peyer's glands in these cases, to distinguish them from ordinary cases of typhoid fever. Since the view formerly held by Dr. Woodward still prevails in many sections of this country, Dr. Bartholow undertakes to indicate the real relation of the two elements composing the mixed fever. The term typho-malarial he considers an unfortunate designation since it implies the existence of a malarial fever into which typhoid enters as an essential element. The typhoid germ received into an organism infected by the malarial poison undergoes development in accordance with its own laws and is in no respect modified by malarial poisoning. For this reason the term is considered a misnomer which should be abolished from our nosology. Dr. Bartholow doubts the existence of a typhoid fever whose symptoms are modified by a malarial fever. There are, he thinks, reasons rather for believing that an antagonism exists between the two, so far, that in the presence of the typhoid poison the malarial ceases to be active. There is, in his opinion, a source of erroneous observation in regard to the manner in which a malarial infection may modify typhoid fever, which is in an especial degree responsible for the prevailing misconception. The remittent character of typhoid has been a cause of this error.

The practitioner having the notion of a continued fever in his mind overlooks the fact that at the beginning and also during the last week of typhoid fever remissions and exacerbations of temperature occur in every case. Typhoid fever is, he says, properly speaking, a remittent fever. "The likeness to the malarial remittent is all the greater, since in every fully developed case of typhoid sweating is a pronounced symptom. The differentiation is the more difficult during the first week, since in some cases of typhoid there is constipation, and in some cases of remittent diarrhœa. In the former, gurgling in the right iliac fossa may be wanting; in the latter it may be present."

A further reason for believing in the independence of typhoid is the failure of heroic doses of quinine to cut short typho-malarial fever. It is true, he says, "a massive dose effects a reduction of temperature, and in so far as lessened body heat mitigates the severity of the fever, quinine exerts a beneficial action, but that it cannot arrest the disease, or shorten its duration is absolutely certain."

Dr. Bartholow points out how an error of diagnosis often confuses the judgment of the practitioner. Typhoid may in many cases bear a superficial resemblance to remittent fever. The converse is also true and the more intense the malarial poison, the more nearly the resulting fever approaches the continued type. In other words a remittent fever may assume the typhoid state. It has long been known that the severe forms of malarial fever tend to assume a lower typhoid state, unless energetically handled by heroic doses of quinine.

Dr. Bartholow is in doubt as to the nature of the influence exerted by the malarial poison on typhoid fever. It appears probable that when the typhoid germ begins its development in the body, the phenomena caused by malarial infection, if it exist, subside. If the malarial poison remains in abeyance during the predominance of the typhoid action, there comes a time when it asserts itself. The intermittent may thus greatly prolong the convalescence if not recognized and effectively treated. In Dr. Bartholow's experience this intermittent succeeds to the typhoid in all cases, in which a really active condition of the malarial poison exists. "In the absence of such manifestations we may well doubt that a malarial complication enters into the morbid complexus." In this way Dr. Bartholow disposes of the question: "Is typho-malarial fever a special type of fevers?" with the unhesitating answer "it is not."

Sequel to the Pitts-Walter Tragedy. —During the past week the trial of Dr. James D. Pitts, charged with the murder of Dr. Littleton T. Walter, May 17th, 1884, on Tangier Island, Accomac county, Va., has been brought to a close at Hampton, Va., by a verdict of murder in the second degree. The case was one of uncommon interest. The facts of the case, as shown by the evidence given at the trial, seem to be as follows: Dr. Walter, a young man

of high character and intellectual attainments, after attending one course of lectures in medicine, located on Tangier Island and soon established a fine practice. Feeling the necessity of completing his medical education, Dr. Walter temporarily abandoned his practice on the Island and attended the University of Maryland during the last session, graduating from this school in March last. During Dr. Walter's absence from Tangier Island, Dr. Pitts located on the Island and succeeded to a large portion of Dr. Walter's practice. After Dr. Walter's return in March last, his old patients sought his professional services. This fact, it seems, led to bad feeling and rivalry between the two physicians. On the day of the tragedy Dr. Walter was invited into Dr. Pitts' office by the latter. Dr. Pitts locked the door, and, in an altercation which took place, Dr. Walter was killed. It was claimed on the trial that Pitts was acting in self-defence when the shooting took place. There were no eye witnesses to the shooting, so the jury was forced to rely upon circumstantial evidence. The verdict is the highest penalty next to hanging, and shows conclusively that the murder was the work of bitter prejudice and passion. Drs. Walter and Pitts are both well-known in this community, both being recent graduates of the University of Maryland. Dr. Walter was known as an industrious, intelligent and peaceable student, whilst Dr. Pitts' habits and conduct were not of the most exemplary character. Owing to the high social position of these two physicians in the community in which they resided, the tragedy has excited bitter partizan feeling.

It was found necessary to remove the trial to the neighboring town of Hampton in order to secure full justice to the defendant. An impartial jury estimates the amount of guilt at 18 years in the penitentiary. Dr. Pitts is now 23 years of age, and should he fill out the full term of his service in the State prison his life will have been far more than half spent. The case fully illustrates the folly of the vicious passion and malicious rivalry so often indulged in by men occupying high positions in communities. A professional education is incomplete which does not teach a spirit of toleration and generous forbearance in professional conduct.

Progress of the Cholera Epidemic.—More recent information than that mentioned in this journal some three issues back shows a decided change in the progress of the cholera epidemic in Southern Europe. After expending much force in Southern France the disease gradually declined in this section only to extend its influence in neighboring countries. Spain and Italy were next attacked, but in the latter country the epidemic spread with marked violence. In Rome, Naples, and other Italian cities a heavy mortality prevailed. The extent of the malady in Italy is shown by a recent telegram. For the 24 hours ending September 15th there were 749 new cases and 280 deaths reported. Heavy rains about Naples have reduced the number of deaths in that city, and improvement has occurred elsewhere. Considerable destitution prevails, but the relief authorities are making strenuous efforts to provide for the wants of the suffering poor. At Marseilles there are still on an average two deaths daily. Since the first appearance of cholera in France 1,618 deaths have been recorded, divided as follows among different nationalities: French 1,140; Italians 427; Spanish 19; Greek 11; Austrian 6; English 5; Swiss 4; German 3; American 2; Swede 1.

Miscellany.

Inheritance of Cancer.—In the course of a paper on the Local Origin of Malignant Growths (*British Medical Journal*), Mr. Jonathan Hutchinson observed: "It is needful to say a few words as to the inheritance of cancer in its bearings upon the doctrine of its local origin, since an adverse argument has been founded upon it. It has been urged with much plausibility, that a disease which is capable of inheritance must be a constitutional one. No doubt, to some extent, this is true; but the argument must not be pushed beyond its legitimate scope. The laws of inheritance, as with property, so with disease, concern convection, and not origin or production. The inheritance of a fortune is a very different thing from its acquisition, and gives us no clue as to how that may have been accomplished. The causes of cancer, as we meet with it in practice, may, perhaps, be usefully classed as three—senility of tissue, local irritation and inheritance. Of these,

only the first two can rank as true causes; the latter, although practically of great importance, is only a mode of perpetuation of that which the other two have originated. Senility gives proclivity, local irritation excites, and subsequently hereditary transmission may perpetuate. The facts, as regards chimney-sweeps' cancer, give perhaps the best illustration of what I mean. Before this malady was practically suppressed by act of Parliament, it was commonly noted that when the trade of sweep went, as it often did, in a family, proneness to suffer from soot-warts, and for soot-warts to degenerate into cancer, increased in successive generations. Grandsons and great-grandsons were attacked at earlier ages, and with much greater frequency, than those who were new to the trade. Here, then, we observe the liability to a form of cancer, produced in the first instance by a local cause, perpetuated and intensified by hereditary transmission. We witness the genesis of cancer, and see the shares taken by local irritation and inheritance, and how entirely secondory the latter is as regards the former. If we ask what that is which is inherited in the case of the transmission of cancer, probably the nearest approach to an answer which can be given will be to say that it is a peculiarity in cell-structure generally; not germs, not a blood-malady, but a special type of cell organization, permitting with greater ease than in other persons the injurious influence of local causes. Even in the sweep, whose forefathers have suffered from soot-cancer, the transmitted tendency still waits for the exciting cause; and the disease occurs, not in internal and, therefore, protected parts, but on the same part as it did in his great-grandfather, and under the direct influence of exactly the same cause. Not that I would for a moment doubt that, in some instances, the inherited proclivity may be so strong that it does not wait for the help of any exciting cause, but manifests its power in the production of a cancer which may be considered spontaneous. It is probably in this way that we ought to explain almost all cases of cancer occurring in very early life; and it may be the fact that, in a few of these, something more definite than mere tissue proclivity may be transmitted, possibly even germinal matter, especially in those cases in which the parent was the subject of the malady. Thus, then, although I fully admit that in the examination of our patients we must make large allowance for the influence of inheritance, I wholly deny that we can allow it to rank as a true cause of cancer."—*Canada Med. and Surg. Jour.*

The Ætiology and Pathology of Lepra.—On Tuesday, August 12th, Dr. Armauer Hansen, of Bergen, spoke at length on the ætiology and pathology of lepra. He exhibited patients to show the difference between the tubercular form and the macular. The former was almost always fatal in nine or ten years, the latter was often cured. The anæsthesia and atrophy which follow are effects of the healing process not of the leprosy, and necrosis of the affected parts is always secondary to injury. The paralyses, too, are local. There are never any traces of spinal lesions to be found clinically or microscopically. He insisted that lepra was not an hereditary but a specific contagious disease; the recurring crops of nodules showed its auto-inoculability; and since the growths tend to heal, it must be specific. There is, moreover, no anatomical correlation between the parts affected, as in the metastasis of neoplasms. The cause of the disease had long been obscure. Years ago he had noticed peculiar brown cells which were always present in microscopic sections of lepra. In 1871 he described minute moving rods in the contents of a breaking down tubercle, and immediately after Koch's discovery he found the bacillus lepræ by applying the same methods. He has never found them in anæsthetic patches, but Ahning has found them in the anæsthetic nerves. The speaker and Professor Neisser have both cultivated them. Inoculations on rabbits and cats (Hansen), and on fish (Köbner and Hansen), had been unsuccessful, but Neisser had produced a new growth by inoculating a dog. No animal has, however, been lepraized as yet. He does not believe in the heredity of a contagious disease; a disease may be congenital without being hereditary, for example small-pox. Heredity and the transmission of such a disease as syphilis, are entirely different matters; the latter may develop late, is incapable of atavism, etc. Relationship even, with leprous people, is by no means always present. The inhabitants of a valley become in time all more or less related, and the members of

one family naturally come into closer contact with each other than with outsiders, hence the apparent frequeney of the spread among relations. Isolation is necessary, for although the disease is spontaneously curable, we cannot cure it; but the effect of isolating the cases in Norway has been effective in reducing the number of lepers by nearly one-half in 20 years.—*Med. Times and Gazette.*

Operations for Cancer of the Rectum. —*The subject of the operative treatment of malignant disease of the rectum was then opened by Professor Esmarch, who read a paper on Extirpation of the Rectum for Cancer. The principal point in Professor Esmarch's communication was the expression of his belief that a permanent cure might follow the excision of the cancerous rectum. He pointed out that recent advances in technique had lowered the death percentage from 50 to 20, and expressed the conviction that better results are still to be obtained.

Professor Esmarch was followed by Mr. Bryant, who presented a tabular arrangement of 82 cases of colotomy performed by him, from which he drew the following conclusions: (1) That in all cases of cancerous stricture of the rectum or colon, including the annular (which are not amenable to lumbar colectomy or anal excision), right or left lumbar colotomy is strongly to be recommended with the well-grounded hope of relieving suffering, retarding the progress of the disease, and of prolonging life even for five or six years. (2) That lumbar colotomy is valuable as a *curative* operation in syphilitic and simple ulcerations of the bowel which resist other treatment, including cases of recto-vesical fistula, and that it is remedial in examples of volvulus of the sigmoid flexure, as well as of obstructions caused by tumors. (3) That to secure these advantages it is necessary for the operation to be performed before the pernicious effects of obstruction occur. He adverted also to his recent modification in operating directed towards the prevention of the passage of fæces into the lower end of the bowel. The usual colotomy incision is made and the bowel is exposed; this having been done, traction is made on the pelvic end, and a knuckle of colon is easily drawn out after free separation of the cellular connections with the finger. The knuckle of colon is left projecting in the wound, unsecured by stitches, and on the fourth day punctured. Mr. Bryant would have no objection to stitches if the operator thought them necessary. The operation has been at present performed in two cases, with eminently satisfactory results.

M. Verneuil considered colotomy a palliative measure only, preferring iliac colotomy as a simpler and equally effective operation. He spoke at some length of the palliative operation of linear rectotomy, practised by himself during the last 18 years in cases which he considered unfit for colotomy or extirpation. The operation is performed in the following manner: The left forefinger being introduced as far as the upward limit of the growth, the thermocautère is introduced external to the sphincter ani in the posterior raphe well without the limits of the growth. When the cautery has been pushed so far that the finger is in danger it is withdrawn and a thick probe introduced into the canal, upon which the complete division into the lumen of the bowel is made. Professor Verneuil claims for this operation that it relieves pain and obstruction.

Professor Trélat stated that he practised all three operations of colotomy, rectotomy and extirpation in suitable cases; but his results forced him to the conclusion that all three were palliative measures and not curative. Of ten cases of extirpation in his practice, recurrence had taken place in eight, in four early and in four late. He remarked on Mr. Bryant's statement that in 82 cases no anomaly of position of the colon had been met with, and quoted a case in which the small intestine, 62 cm. from the duodenum, had become adherent to the kidney and was opened. Mr. Sampson Gamgee spoke of some cases of colotomy seen in the practice of M. Verneuil and himself. Professor Marshall spoke of the recession of urgent symptoms noticed in cases of malignant stricture of the rectum on the formation of fistulæ as bearing on M. Verneuil's operation of rectotomy, and stated that the observation had led him to make irregular incisions with a view to forming fistulæ which he kept open with

*Discussion before the Section on Surgery, International Medical Congress. (Taken from Med. Times and Gaz., Aug. 23)

sea tangle in five cases; the results had been such as to make him look favorably on the improved method of M. Verneuil.

Professor Volkmann spoke at considerable length on the subject. He pointed out that the prognosis in different forms of cancer differed much with their topographical distribution, instancing the nose as a situation in which it was relatively good. He stated that in rectal carcinoma especially was the prognosis a good one, recurrence often taking place as late as five, six or seven years. The prognosis was also better in cases of chronic progress; and again in a certain number of cases the new growth was surrounded by a wall of inflammatory new formation. These latter at the time of operation were often thought unpromising from the indurated nature of the tissue cut through, but experience showed that they were most favorable, the wall of inflammatory new formation appearing to act as a barrier against the spread of infiltration in the lymphatic vessels. He spoke in detail of the three forms of carcinoma met with, adverting to the occurrence of scirrhus in young subjects, as well as its tendency to affect long areas of the gut, and expressed the opinion that all other forms of new growth are exceedingly rare. With regard to the treatment, cases are divisible, he said, into two classes, according as the peritonæum is or is not opened; in the latter the prognosis is good and in the former of course less so. A surgeon's results with excision of the rectum improve with practice, as has been the case with ovariotomy and nephrectomy; hence a gradual improvement in statistics is to be looked for, though from the nature of the case so good an average as that obtained in ovariotomy is not to be expected. Drainage is necessary when the peritonæum is opened; the peritonæum however should be sutured between the openings left for the tubes. The operation is indicated when the upper limit can be reached under chloroform, and when the growth is so moveable as to allow the assumption that the bladder is not implicated. The gut should always be brought down and sutured. In the one case where he omitted plugging the wound with iodoform a long stricture resulted. The cases for colotomy were few in number, belonging to a neutral zone of gut, too low for laparotomy and excision, too high-reaching for extirpation. In these cases he perferred anterior colotomy, the lower end being separated, sutured and returned, to prevent the possibility of the formation of a *cul-de-sac*. As to the mortality after operation—of Mr. Bryant's 60 cases of colotomy, 26 had died in the first four weeks, a much higher death-rate than had ever followed extirpation, and lastly when patients did get a recurrence after extirpation they usually died without the pain and suffering commonly attending death from rectal carcinoma.

Mr. Hy. Morris presented a table of 23 cases of colotomy arranged as Mr. Bryant's. He stated that the reasons which led the surgeons at Middlesex Hospital to practise lumbar colotomy were:

(1). The fact that the peritonæum is not opened.

(2). That right lumbar colotomy is practicable in some cases where ante-sigmoid colotomy is impossible, and

(3). That in many cases the patients were exhausted and bedridden, so that the posterior opening offered a more convenient and dependent drain.

The discussion was closed by Professor Kuster. He expressed his approval of iodoform as a dressing after extirpation and dwelt on the value of the scraping as a substitute for colotomy or rectotomy. He stated that so great an improvement followed scraping as sometimes to allow the patient to think himself cured for three or four months.

Profrssor Virchow.—A Berlin correspondent of the *Can. Med. Journal* for July supplies some interesting facts concerning the great Berlin Professor. "The central figure at Berlin is Virchow. With the exception of the years 1849–56, he has been here as student, prosector, and professor since 1839. In 1844 he became assistant to Froriep, whom he succeeded as Prosector of Pathology in 1846, losing the position in 1849 on account of his active participation in the political disturbances of that period. He was, however (not without considerable trouble), reinstated, and shortly after was called to Würzburg as Professor of Pathology, returning to Berlin in 1856. Under his direction the Pathological Institute of the Charité has become the most famous pathological school in Europe; and to name the men who have been his assistants is to go over those of

many of the best known teachers and investigators in Germany—Klebs, Recklinghausen, Rindfleisch, Cohnheim, Liebreich, Hoppe-Seyler, to say nothing of the younger men, Orth, Ponfick, Salkouski and others. After forty years of teaching, it is but natural that he should have much of the drudgery done by his able assistants, Jurgens, Grawitz and Israel, who conduct the autopsies and the courses on pathological histology. Students, however, have still the great privilege of hearing him in three different classes. For the first three or four Mondays of the semester, from 7.30 to 10 A. M., he performs an autopsy before the class, giving detailed directions as to methods and the proper modes of observation. On Wednesday and Saturday are held the famous demonstration courses on morbid anatomy, in which the material for the week, often ten or fifteen cases on each occasion, is brought before the students. The time occupied is at least two and a half hours, the first half of which is taken up by some special subject, the pathology of which is well illustrated by the specimens at hand. At 11 A. M. he gives each day a lecture on special pathology. Politics and anthropology now absorb the greater part of his time. He is a member of the German Parliament and of the Prussian House of Representatives, and I noticed a day or so ago in one of the daily papers that Virchow had spoken in one of these thirty-eight times during the session. It need scarcely be stated that he is an advanced Liberal. He is also a member of the City Council—not an idle one either, as the copious literature of the "canalisation" (drainage) system of the city can testify. His archæological and anthropological studies are most extensive, and it is upon these subjects that he now chiefly writes. When one turns to the Index of the Berlin Archæological or Anthropological Societies, the figures after his name stand thick and deep, just as they do in a similar index of medical subjects. He has been collaborator with Dr. Schliemann in several of the important works issued on Trojan antiquities. His collection of skulls and skeletons of different races, one of the most important in Europe, will doubtless find an appropriate place in the new Archæological Museum erected by the Government. There are those who grudge him the time he spends on politics and his favorite studies, but surely he has earned a repose from active pathological work, and may well leave section cutting and bacteria-staining to the smaller fry; and when we consider that in addition to the classes above-mentioned, he is President of the Berlin Medical Society, and edits his *Archiv*, now a large monthly journal, it can scarcely be said that he neglects professional duties. On all questions of general, medical, and scientific interest his utterances are not infrequent, and display a judicious conservatism—as witness his sound position regarding the Darwinian theory as opposed to the vagaries of Haeckel. It is satisfactory to note that the attack of gouty nephritis of some eighteen months ago appears to have left no trace. Aged, of course, he is (he is now 63), but there is still a vigor and sprightliness in the wiry frame which bespeak years of continued activity."

The Treatment of Cases of Epithelioma of the Anus and Lower Part of the Rectum.—A few years ago, the removal of the lower part of the rectum was somewhat enthusiastically taken up by some surgeons, and many seemed to think that it was worthy of ranking as an operation of the first magnitude. It appeared to me after seeing the results of a few cases in the hands of my colleagues, that, as a means of affording any substantial relief, its scope would be very limited. Seeing the very short distance that the operator can go in the upward direction behind the disease, and consequently the almost inevitably speedy recurrence, together with the uncontrollable contraction that must follow anything like the complete removal of the entire circumference of the gut, or anus, I suggested some time ago that it would be much better, in all cases but the very slightest, to perform a lumbar colotomy first, and then, when the patient has recovered from this, to excise the malignant growth as freely as possible. If the patient gets over this, he has every chance of living a year or two in tolerable ease.

On the first occasion that presented itself, I put this plan into practice, with the happiest result. The patient was under observation for two years after the second operation, and was in perfect ease and comfort, and had become quite fat and strong, though at the time of the operation,

she was much emaciated. The most striking point, to my mind, is that, though the disease had reappeared within six months after the removal, she was quite unconscious of its existence. My attention has been forcibly directed to this subject again by witnessing the daily tortures of a friend who has undergone two partial and wholly useless operations, and has now to pass his motions over a ragged raw surface with a gash in it, caused by one of the operations. The presence of the disease in the lymphatics of the groin now renders any attempt at removal out of the question; but the colotomy might still be done. I contend that, by adopting the course I indicated, any patient might pass through all the phases of this horrible and fatal malady with scarcely any pain at all. The advantages of the absence of fæces from the wound resulting from the excision, or from the recurrent growth, are too obvious to require mention here.—*James E. Adams, Brit. Med. Journ.*

Age of Greatest Risk From Consumption.—Dr. Henry B. Baker, of Lansing, Michigan, writes to the *Med. Record:* "On page 36 of *The Record* for July 12, 1884, I am glad to find an article, illustrated by a diagram, showing the death-rate from consumption at several periods of age from twenty to over seventy years. Some years since I prepared and published in a volume distributed in Michigan ("The Vital Statistics of Michigan, 1870"), issued in 1872, a similar diagram relating to the deaths returned as having occurred from consumption in the State of Michigan in the year 1870, 1,451 deaths in all, in which the increased proportion of deaths to inhabitants over the age of fifty-five years was especially noticeable. The subject is one which may justly claim the attention of the physician as well as the student of vital statistics. The death-rate of females was much greater than that of the males at ages from ten to fifty-five years, except that at the period from forty to forty-five years of age the death-rate of women from consumption dropped very noticeably; but at ages fifty-five to seventy-five years the death-rate of males was greater than that of females, from this disease. The number of deaths of those above the age of seventy-five years is too small to give a steady curve, but the table, and especially the diagram, shows well the death-rate of each sex from birth to the age of seventy-five years. The death-rate from consumption was then shown to be least at the ages from five to fifteen years. The remarks then made in connection with the subject, show the reason for the fallacy in the popular view that the death-rate is greatest at ages twenty to twenty-five or twenty to forty; the *number* of deaths being greatest at ages twenty to twenty-five, the fact of the much greater proportion of inhabitants at those ages than at the older ages is not generally held in mind."

Recovery of Motion After Resection of the Knee-Joint—Mr. Boutflower recently exhibited before the Manchester Medical Society a boy, 7 years old, who had suffered with anchylosis at an acute angle, and pulpy disease, following strumous synovitis, for which he had opened the joint by the ordinary semilunar incision, removed the patella, excised the contiguous surfaces of the tibia, fibula, and femur, and scraped away the spongy synovial membrane with a Volkmann's spoon. After the operation, the wound was washed with a solution of chloride of zinc (gr. iv to ℥j), and the limb placed on a Watson's splint, the after-treatment being carried out under strict Listerian principles. The wound was quite healed by the fourteenth day, the dressing only having been removed three times during the treatment. The boy now walks about with facility, showing only a very slight degree of lameness in locomotion; the knee itself differs very little in appearance from a healthy knee-joint, notwithstanding that a considerable section has been removed from both the femur and tibia, as well as the entire removal of the patella.—*Lancet*, May 17.

Treatment of Nasal Polypi.—As a valuable contribution to the therapeutics of this unpleasant condition, we are glad to note that Dr. Richardson, in the *Asclepiad*, recommends the use of sodium ethylate in the treatment of nasal polypus. The caustic agent is applied by means of a probe made of soft cotton wool, twisted into shape on the points of a pair of forceps. This cotton probe is saturated with the ethylate, and then plunged into the substance of the polypus. On removing the cotton it commonly happens that the patient can expel the whole mass of destroyed polypus, in a

semi-fluid form, by blowing the nose sharply. A second application ought to be made with a view of destroying the base of the polypus. The mode of action is said to be sufficiently clear. The ethylate is decomposed by contact with the water of the polypus into caustic soda and alcohol; the latter coagulates the albuminoids, and the former acts as a powerful caustic. With the exception of some burning pain, no unpleasant effects seem to follow the use of this method.—*Medical and Surgical Reporter.*

Muriate of Ammonia.—It increases the secretion of mucus from the alimentary canal, and is supposed to render the blood less plastic and coagulable, without impairing the structure of the corpuscles. Its habitual use causes emaciation, renders all the secretions freer and more abundant, and exerts an alterative and absorbent action, especially on the connective tissues, in hyperplasia and cirrhosis of many organs. It has even exerted some beneficial influence upon fibrous tumors of the uterus, and much more upon chronic engorgement of that organ. Its slow but steady modification of the nutrition of the connective tissues has been seen in chronic enlargements of the liver, spleen, prostate, thyroid, and other enlargements. It cures many cases of gleet and if any internal remedy will relieve strictures of the urethra, this is the one most apt to do it. It cures some cases of neuralgia depending upon thickening of the neurilemma, and is one of the best remedies in fibrous phthisis. If other remedies fail, it should be tried in sclerosis of the cord and brain depending upon thickening and induration of the neuroglia.—*Medical Record.*

Malarial Gastralgia.—Dr. N. O. D. Parks, of Ashton, R. I., writes to the *New York Med. Record:* "The following case may prove interesting as an example of the hydra-headed manner in which malaria manifests itself: K. H., a young married woman, has been subject to severe attacks of gastralgia since the birth of her first child about ten months ago, when they occurred for the first time, and have been hitherto amenable to treatment. She had one on June 7th, and called in a physician who administered morphine hypodermically. I was sent for June 10th. She seemed to derive no benefit from morphia, virburnum, Hoffman's anodyne, nor any of the usual remedies, external or internal, the paroxysms apparently subsiding of themselves after the lapse of four or five hours, to return with increased violence, at first every other day, but finally they recurred every morning, accompanied by vomiting, which brought no relief. This periodicity led me to administer quinine in full doses, which promptly aborted the attacks. After three days I lessened the amount of quinine, and prescribed arsenic in small doses, and she had no recurrence of the malady."

Children's Tonic.—The most pleasant and palatable disguise for quinine may be extemporized as follows:

℞	Quiniæ sulph.,	grs. xl.
	Acid tannic.,	grs. xx.
	Tinct. opii camph.,	ʒss.
	Tinct. cinchonæ,	ʒss.
	Spts. lavender co.,	ʒiij.
	Syrup. simp., ad	ʒiv.—M.

Shake well before using. The dose will be usually one teaspoonful three times a day, but the amount of quinia desired to be administered should govern the size of the dose. It will make a beautiful creamy mixture, if the quinia and tannin are rubbed together on a pill tile or a sheet of paper with a spatula until all lumps disappear, then put in a suitable bottle and first add the paregoric, shaking at once, then the cinchona and lavender, followed by the syrup.—*Canada Lancet.*

Treatment of Sea-sickness.—T. T. Reynolds, the surgeon of a transatlantic steamer, speaks favorably of the use of drop doses of the liq. atropiæ sulphatis (Ph. B.) in a teaspoonful of water, and given hourly until the physiological effects of the drug appear. This is serviceable only when used early in the malady, and may be accompanied by drachm doses of equal parts of brandy and iced water, or iced lemonade when there is dryness of the throat from the effects of the atropine.

Speaking of the use of the bromides in large doses (90 grains per diem), as recommended by the late Dr. G. M. Beard, Dr. Reynolds mentions several instances in which much harm has resulted; delirium, followed by impotence and incapacity for business of considerable duration, being the most notable results.—*Amer. Druggist.*

A Point in the Diagnosis of Strangulated Hernia.—Dr. Englisch, of Vienna, on examining the urine of patients under treatment for strangulated hernia, has ascertained that it always presents albumen in proportion to the duration of the strangulation. If surgical means be not adopted, the albuminuria continues until the death of the patient. The quantity of albumen is not affected either by the date of the hernia, the size of the sac, the frequency of anterior strangulations, nor by a febrile condition. When there is simple protrusion of the omentum, albumen is absent. Prof. Nothnagel attributes this albuminuria to diminished intravascular pressure resulting from presence of a strangulated hernia.—*British Medical Journal.*

Pruritus Vaginæ.—Dr. Hach stated at the Riga Medical Society (*St. Petersburger Medicinische Wochenschrift*, March 22), that, in a very obstinate case, in which various external and internal means had been employed in vain, he had met with complete success from dusting the mucous membrane of the vagina with iodoform. Beyond slight redness of the vagina, no diseased appearances were observable. Dr. Rulle stated that he had often employed iodoform balls in this affection, but had derived better results from the watery extract of opium, and small injections of cold water. He believed that this pruritus often arose from a slight dilatation of the rectum, just above the sphincter ani, which gave rise to detention of fæces there.—*Med. and Surg. Reporter.*

Resection of the Pancreas and Pylorus.—At the meeting of the Gesellschaft der Aerzte, of Vienna, on March 28th, Dr. von Hacker presented a woman who had been operated on by Prof. Billroth, one month previously, for carcinomatous disease of the pylorus, involving the mesentery, intestine, and pancreas. The adhesions were torn or cut loose, and the affected portion of the pancreas was resected. The patient was quite well when exhibited.—*Wiener med. Wochenschrift*, April 5, 1884. —*Med. News.* Aug. 23.

Famous Examples of Nervous Exhaustion.—Much of the world's best work has been done by neurasthenics, says Beard. George Eliot, Darwin, Heine, Spencer, Edwards, Kant, Bacon, Montaigne, Joubert, Rousseau, Schiller, illustrate the possibility of not only living, but of doing original work on a small capital of reserve force.—*Medical Record.*

M. Pasteur's method of inoculation for hydrophobia seems uncommonly like the old "morning after" remedy, when the chippy one who could strike matches on his tongue was advised "to take a hair of the the dog that bit him." We have heard that it was an infallible recipe for the cure of *that* sort of phobia.—*Punch.*

Medical Items.

The New Orleans Medical and Surgical Journal is now edited and published by an association of physicians, under the name of "The New Orleans Medical Publishing Association. This arrangement assures the future prosperity of this journal.=The Jefferson Medical College, of Philadelphia, has elected Dr. J. W. Mallet, of the University of Virginia, to the chair of chemistry in that school, to succeed the late Prof. Robert E. Rogers. Prof. Mallet is one of the most accomplished chemists in America, and his elevation to a chair in the Jefferson College is a great gain to that school. =The College of Physicians, of Philadelphia, recently gave a reception to the members of the British and American Associations for the Advancement of Science. This was the first of the series of entertainments provided for by the Weir-Mitchell Entertainment Fund.=The *British Medical Journal* is sure that its American cousins will leave nothing undone to make the next meeting of the International Medical Congress as successful as the last two, if indeed they do not succeed in eclipsing former achievements. Our British cousins may count every time on the hospitality of their kinsmen on this side of the Atlantic. =The opening of the late International Medical Congress on Sunday was not in accordance with American and British notions. It was agreeable, however, to the Continentals.=*The New England Medical Monthly* for this month publishes a biographical sketch and engraving of Prof. Richard McSherry, of this city, which reflects much credit upon the enterprise of that journal.=Messrs. Thomas & Evans, publishers of this city, announce that they

will shortly bring out a Text Book of Hygiene, by D. George H. Rohé, of this city. The work will be a comprehensive treatise on the Principles and Practice of Preventive Medicine from an American Standpoint, and will comprise about 300 pages. Dr. Rohé is thoroughly competent to write a first class book, and we have no doubt this work will reflect credit upon its author.=Dr. R. J. Curtis asserts in the *Med. and Surg. Reporter* that a preliminary education is a benefit to a man who enters a medical college, but believes that a classical education is, if anything, an injury to him.=Kansas is described as the paradise of eclectics. They number six hundred in the State and occupy lucrative positions in cities and country towns. In comparison with other industrial classes, they are thrifty, diligent, have nice homes, pretty wives, sons and daughters, wear good clothes, drive fine horses, own miles of prairie, bank stocks, meet the difficulties and enjoy the incidents that go to make up a busy, active life.—*Cor. to Med. Record.*=Owing to the ap pointment of Prof. Schweninger as a member of the Imperial Board of Health, the Director, Dr. Struck, has resigned. Dr. Koch has refused to be his successor and has also withdrawn from the Board. Prof. Schweninger owes his promotion to Bismarck. He is said to have had no scientific or social standing amongst the profession prior to his success in Bismarck's case. His elevation to a chair in the Medical Faculty of the Berlin University is a very bitter pill to the profession in Berlin.=Prof. Dr. L. Mauthner is mentioned as the most likely successor to the chair of Ophthalmology, at Vienna, vacant by the death of Prof. E. von Jaeger.=The second International Congress of Surgical and Orthopædic Instrument Makers was held at Dresden on Sept. 14th.=Dr. Thomas W. Wells died at Hampstead, Md., on the 12th inst., act. 76. =A meeting of the Med. and Chir. Faculty of Md. was held on the 5th inst. to commemorate the life and services of Dr. Riggin Buckler. Addresses were delivered by Drs. Donaldson, Patterson, Murdoch, Morris and Lee, and suitable resolutions adopted. The proceedings of the meeting, it is unstood, will be published in pamphlet form. =Dr. Melvill Taylor, a prominent physician of Govanstown, Md., died on the 16th inst., with diphtheria contracted whilst in the discharge of his professional duties. Dr. Taylor was thirty-four years of age and stood very high in the community in which he resided.=The Pennsylvania and Maryland Union Medical Association met this year at Ephrata Springs, Pa. The meeting was well attended and proved to be a most successful affair. Dr. W. S. Rowland, of York, was elected President for the ensuing year.=Dr. S. K. Jackson, of Norfolk, Va., has been elected President of the Medical Society of Virginia for the ensuing year.=Professor Mallet has tendered his resignation of the chair of Chemistry in the University of Virginia, and it has been accepted by the Board of Visitors.=Dr. J. J. Bruce died in Cumberland, Md., on the 13th inst., act. 56, of apoplexy. He had not practiced medicine for many years, having given it up to engage in the lumber business and politics.

Changes in the Stations and Duties of Officers Serving in the Medical Department U. S. Army, from Sept. 9, 1884, to Sept. 15, 1884:

Greenleaf, Chas. R., Major and Surgeon, to conduct a detachment of recruits to the Department of the Columbia, and upon completion of this duty rejoin his station, Columbus Barracks, Ohio.

Gorgas, W. C., First Lieutenant and Assistant Surgeon, assigned to duty at Fort Randall, D. T.

Macauley, C. N. B., First Lieutenant and Assistant Surgeon, assigned to duty at Fort Sisseton, D. T.

Egan, P. R., First Lieutenant and Assistant Surgeon, when relieved by Assistant Surgeon Fisher to report at Fort Lowell, A. T., for duty as post surgeon.

Fisher, W. W. R., First Lieut. and Assistant Surgeon, assigned to duty at Ft. Apache, A. T., relieving Assistant Surgeon Egan.

Ewing, Chas. B., First Lieutenant and Assistant Surgeon, assigned to duty as post surgeon at Fort Stanton, New Mexico.

McCaw, W. D., First Lieutenant and Assistant Surgeon (recently appointed), to report in person to the Commanding General Department of the Missouri for assignment to duty.

List of Official Changes in the Medical Corps of the U. S. Navy for the week ending Sept. 13, 1884:

Surgeon T. C. Heyl, Sept. 8, 1884, from the Adams and to the R. Ship Independence, Mare Island, Cal.

Clinical Reports.

UTERINE CATARRH, MENORRHAGIA AND METRORRHAGIA, SUB-INVOLUTION AFTER MISCARRIAGE, BI-LATERAL LACERATION OF THE CERVIX UTERI.

Clinical Notes from the Gynecological and Obstetrical Department of the Baltimore Polyclinic and Post Graduate Medical School,

REPORTED BY THOS. A. ASHBY, M. D.,

Professor of Gynecology and Obstetrics.

Uterine Catarrh.—In the Gynecological service of the Polyclinic, under the care of the reporter, which is conducted on Mondays, Wednesdays and Fridays of each week, alternating with Prof. B. B. Browne, there is a daily average of from six to thirteen cases. Among the large number of women thus presenting themselves for treatment a variety of uterine conditions is observed. The ordinary ailments peculiar to the female sex, such as displacements and catarrhal inflammations, most largely prevail; but it is more especially among this latter class of cases that clinical facts are most suggestive. Uterine catarrh in its different manifestations is usually considered an opprobrium of gynecological practice. There is scarcely a condition which so taxes the ingenuity and patience of the practitioner as the inflammations which attack the endometrium of the uterine cavity and canal. The stubbornness with which many of these catarrhal conditions resist treatment is so well known that hopeless prognoses are frequently indulged in. In the treatment of chronic uterine catarrh many important details are overlooked, and the want of success is oftener the want of "infinite pains" upon the part of the practitioner than the result of inherent defects in the condition itself. Success may be purchased in many of these conditions if the physician and patient can be brought to work in accord. One secret of success is gentleness and patience in dealing with the inflamed endometrium. Gentleness is necessary in making applications to the inflamed tissue. The rough use of instruments, of caustics, and of severe astringent applications, is a frequent cause of the worst forms of endometric inflammations. Patients have not unfrequently presented themselves to the reporter with conditions of the endometrium sadly made worse by the rough usages practiced by physicians who undertook to cure the disease with violent caustic agents. Gentleness is then a prerequisite to success. By this term is implied the use of remedies that will induce a healthy condition of the inflamed tissue rather than a destruction of this tissue; the use of suitable instruments for handling and treating the inflamed organ, and the habit of gentle employment and rest upon the part of the patient herself. Patience upon the part of the physician is another essential qualification in the practitioner who wishes to succeed with this class of patients. As a class these patients are extremely annoying and dissatisfied individuals. To gain their confidence and assistance in the use of proper methods of treatment is often difficult. Yet that can usually be done if the medical attendant is not tired out in the effort. Having the patient under proper discipline and interested in the success of treatment, the practitioner should employ careful methods of applying remedial agents to the inflamed surfaces. The first and a most important rule to be observed in treating an inflamed uterine canal is to remove all secretions and thoroughly cleanse the mucous surfaces. This carefully done, the agent to be employed is next brought in proper contact with the tissues to which it is to be applied. The application having been made, glycerine or some soothing agent may be left in contact with the surfaces thus treated. It is advisable that rest should be enjoyed for a short time after the application has been made. This is often impossible in dispensary or office practice. As a rule severe applications should not be made to the endometrium unless the patient can be placed for several hours or more upon a lounge or bed.

Mild forms of chronic catarrh respond much more kindly to the patient and gentle use of astringent applications than where caustic agents are employed. It seems to the reporter that Churchill's tinct. of iodine is more to be relied on as an application than iodized-phenol, chromic acid, nitrate of silver, and other similar agents so often used by gynecologists. It may be necessary to vary these agents in a limited number of cases. Nitrate of silver so highly praised by some authorities in chronic endometritis, may be used with

advantage in a limited number of cases, though in the reporter's experience the strong solutions of sixty and eighty grains to the ounce of water are not indicated, the full efficacy of the drug being obtained by solutions of half this strength and less. Hot water vaginal injections are of undoubted value in all these forms of uterine catarrh. Unless the water is used as hot as can be borne and is brought in contact with the cervix by a long-continued and gentle stream, the benefit is not marked. Hot water is a great depletant agent, and this influence is soon shown when it is properly brought against a congested cervix. Various methods of administering the vaginal bath have been suggested, but there is much difficulty experienced by many females in the employment of a suitable method. Having once explained to the patient the reason for the use of hot water and the benefits to be expected from its local employment, she will in many instances succeed in throwing the stream against the uterus, and will often persevere in the use of the syringe. In the tedious details of the hot vaginal douche many patients need close prompting and encouragement. The physician should make it a rule to ask the patient each visit if she uses the syringe, and require her to explain how she has employed it. Many patients will deceive their physician, and the best of them will neglect or omit the use of the vaginal douche unless closely watched and prompted in their duty in this respect.

The physician who fails to recognize the influence of uterine displacements as a cause of endometric inflammation will be unable to manage many of these obstinate catarrhal conditions. To remove a cause is often to effect a cure, but where cause and effect are so closely in affiliation, it taxes the most searching ingenuity to recognize to which order of conditions the one under consideration belongs. Uterine displacement must be relieved before the uterine catarrh will come under control, and having once relieved the catarrh, one step in the correction of the displacement has been reached. The numerous details for overcoming the many forms of displacement can not be considered here. One suggestion is offered as worthy of careful repetition. It is this: In the use of mechanical supports to the uterus, employ the cotton tampon in such cases as require only a temporary supporter, and where they can be renewed conveniently as often as every alternate day. Absorbent cotton well moistened with carbolized glycerine may be carefully packed in the vagina without making undue pressure upon the bladder or rectum. It offers a very convenient and easy support for a number of cases which do not require the use of a permanent pessary.

Menorrhagia and Metrorrhagia.—A number of cases of this trouble have come under observation at the Polyclinic. In searching for a cause in certain cases whose histories were clouded with doubt, an hypothesis has been assumed to account for the presence of this trouble. Cases whose histories could not explain the presence of profuse losses of blood from the usual conditions which give rise to excessive flows at and between the regular periods, give strength to the proposition that very early separation of the fœtus is a very much more common event than is generally supposed, and is the true cause in many instances of profuse and irregular flows. The histories of such cases do not always point to impregnation, for the patients have not had time, in all instances, to become aware of this condition. In not a few cases the patient misses once or twice and the next flow comes on with severe pain and violent hemorrhage. The flow continues beyond the normal period to return once or twice during the month. The discharge thus established may come and go at short and irregular intervals for months before finally ceasing. In three cases, of which notes were kept, as few as three applications of Churchill's tinct. to the body of the uterus removed the villous growths from the endometrium and resulted in an early cure. It is believed that early separation of the fœtus from the maternal tissues leaves, in not a few cases, a granular or villous condition of the endometrium, which may be removed without the use of the curette, but by mild astringent applications to their surfaces. In later separations these villi are more tenacious and require more heroic measures for their removal.

Sub-Involution after Miscarriage is frequently responsible for the enlarged and congested state of the uterus so often observed among laboring women. The facts seem to be that these individuals abort very

readily, and not being able to remain at rest, after their mishaps, continue to exert themselves, and thus in a measure defeat the normal involution of the uterus. The organ is thus left enlarged, flabby and congested. Displacement and its attendant symptoms is a frequent result. It is difficult to explain why this condition does not follow miscarriages more frequently than is observed. That such patients do escape the consequences of early employment after miscarriages is shown by the following case. An Irish woman, aged about 30 years, the mother of five children, sent for me in the early night to check a uterine hemorrhage. I found her in bed with her clothing on, quite bleached from loss of blood. She had had an attack of syncope, the occasion of my being sent for. Whilst not apparently in pain, I soon learned she was four months pregnant and that she had aborted during the day and had cast off the fœtus. Making a digital examination the os was found very slightly patulous. The placenta and blood clots filled up the cavity of the uterus. These were removed. The woman was given fl. extract of ergot and opium, and enjoined to remain in bed. By morning all hemorrhage had ceased, and, notwithstanding orders to the contrary, the patient was up and about her work by night. She has suffered no evil consequences since. Such a history must be exceptional, unless the theories of rest after parturition are based upon erroneous observations and assumptions.

If the practitioner will question carefully, a number of uterine conditions may be traced up to early separations. The patient is not always aware that she has had a miscarriage, but may be able to relate a history of irregular or suppressed menstrual flows followed by free discharges of blood without knowing the cause of the condition. In other cases the deliberate attempt to provoke an early separation will be admitted. In these cases a large, flabby and congested uterus will be observed, the organ presenting the appearance of having been left in an abnormal state by some change through which it has passed. The treatment of this condition is generally satisfactory. A period of rest, the use of hot vaginal injections and careful applications of alterative and astringent agents will exercise a marked influence over the trouble.

Bi-lateral Laceration of the Cervix Uteri.—A case of bi-lateral laceration of the cervix uteri coming under observation at the Polyclinic fully illustrates the statement made by Dr. Emmet that the recognition of this accident may be frequently overlooked by a non-careful examination, the condition being mistaken for an erosion of the cervix. The patient, aged about 25, gave birth to a child eighteen months prior to her visit. Her labor was attended with much difficulty, and her child died shortly after its birth. Dating from the period of her confinement, her health had been poor and her nervous system depressed. She complained of constant backache and bearing down pains in loins and pelvis. Menstruation returned profuse and irregular. She was troubled with an excessive leucorrhœal discharge. Her digestion was poor and her nutrition seriously impaired. From a stout woman she had grown thin, nervous and anæmic. Physical examination disclosed a slightly enlarged uterus, depressed in the pelvis, the cervix presenting the appearance of complete erosion. Its appearance may be compared to that of a piece of fresh red beef. The outline of the erosion and the appearance of the cervix so closely resembled the normal cervix with its mucous covering removed that the first assumption was that the entire epithelial lining of the vaginal cervix had been removed by some erosive action. It required close examination to detect the real nature of the condition. Catching the cervix at two opposite points with a tenaculum and tissue forceps, the opposing ends were drawn together, disclosing the fact that the entire eroded surface was simply the everted cervical canal with its lining membrane removed. Drawing upon the two wings of tissue and rolling in the everted surfaces, the *arbor vitæ* arrangement of the cervical canal was very clearly shown. The eversion was so complete that nothing but the experiment of turning in the margins of the cervix in the manner related would have made the diagnosis clear. Dr. Emmet has pointed out the fact that lacerations of the character named are frequently treated as ordinary erosions of the cervix, from whence a misconception has arisen in reference to the true nature of the condition observed. The result of treatment in this case fully illustrates the benefit of operative measures. The edges of the wound were brought to-

gether and the union which resulted has relieved all of her former distressing symptoms. Four months after the operation the patient professes to be in the enjoyment of perfect health, having gained some twenty pounds in weight, a rosy complexion and a new lease of life, as she expresses it.

Hospital Reports.

REPORT OF MEDICAL DEPARTMENT OF BAY VIEW, UNDER CARE OF THE UNIVERSITY OF MARYLAND.

SERVICE OF JOSEPH T. SMITH, M. D., BALTIMORE, MD.

The Hospital department of Bay View Asylum was, by a resolution of its Board of Trustees, transferred about May 1st to the control of the faculties of the University of Maryland and College of Physicians and Surgeons. The liberal policy thus pursued by the Board has been the means of opening up to medical students a storehouse of valuable material which has been heretofore more or less completely locked up. The clinical material thus furnished will prove of as much, or possibly of more, value to recent graduates. Here they can reside and devote themselves unreservedly to the study of the phenomena of disease, and in case of a fatal issue have the diagnosis confirmed or rejected by a subsequent examination.

The inmates ought surely to fare well, for their interests are looked after by a Board of Trustees, which meets each week, and at stated times an inspection is made by the Grand Jury. Two resident physicians are in the building, and usually both, but always one, is on duty. A number of graduates are now at the Asylum to whom the cases are assigned, and each day the whole hospital is reviewed by a visiting physician or surgeon from each College.

The work of each College is separate and distinct, each Faculty controlling its own department, so that further than being in the same building absolutely no community of interest exists; each governs its own work as seems to it most judicious

At present the insane are kept in the same building with the other inmates, although completely isolated from them; in a few days, however, the builders will turn over to the Trustees a new building separated entirely from the Asylum proper, which will be for the exclusive use of the insane. The new building will contain over 100 cells. These have asphalt floors, so that they can readily be kept clean; they are separated from each other by plaster partitions, which extend up half way to the ceiling, the remaining space being filled out with heavy iron grating, thus freely opening into the large hallways, an abundance of fresh air can be kept in constant circulation. In addition to the cells each floor is provided with large rooms for those who do not require to be confined and constantly watched. The insane being thus removed, their present quarters will be used for hospital purposes, and in this way the facilities for the care of the sick will be greatly increased, and regular clinics will be held in a room set apart for the purpose.

I have been led to make this allusion to the present management of Bay View from the many questions asked concerning it; I trust, therefore, it will not be out of place. It is not proposed to give a list of the cases now in the hospital, but simply to notice two or three which have been of interest since my term of service. I have to thank Drs. Hocking and Hoover for securing the histories and keeping notes of the cases for me.

Case I.—Lizzie B—, age 20, was admitted to the insane department about five months ago, having previously been four months at Mount Hope. Her mother hung herself after difficulties with her father; this, with ill treatment from her father, caused her mind to give way. Up to that time she appears to have been in good condition. At present her physical health is fairly good, except that she has had her menses but once (and then from the use of drugs) since her trouble. The idea that she was the cause of the trouble between her father and mother, and thus is the indirect cause of her mother's death, has mastered all else and is the dominant thought at all times. This has resulted in a state of nervous excitement, to allay which she, "when the fit is on her," exercises long and violently, even to exhaustion. A calm then follows of irregular duration, to be followed by the excitement, and so the cycle is completed. Even in times of her excitement her mental faculties

when allowed to play are clear, so that by a strong effort on your part you can succeed in diverting her thoughts into other channels, but the effort must be strong and constant, or the trouble of her present life will become dominant. As she slept badly, and to control the excitement, she was given large doses of kali bromid. and chloral, but without much, and often without any effect. She was given little else in the way of medicine. The evident indication here was the control of the motor excitement, or rather to cut short the period of excitement and prolong that of the calm, and how should it be done? Conium suggested itself for the relief of the motor excitement which her mental condition gave rise to. She was therefore ordered twenty minims of Squibb's fluid extract (the only form in which the drug should be given) thrice daily, and when the period of excitement was about to set in, twenty minims at once and ten minims every hour until sleep was produced; she was at the same time kept in her cell as quiet as possible. The effect of the drug has been good; she sleeps much better, the periods of her excitement are less frequent, and the girl, though not well, is in a much better condition than she has been in a long time. A cure, if such a thing be possible in her case, will result from the effect of the drug in prolonging the period of calm, and so preventing that exhaustion which she was subject to previously; but if owing to hereditary taint or the too long continuance of the malady a cure should not result, this case has shown that "the best, most reliable and safest drug for the relief of motor excitement is conium." Much care and watchfulness are requisite in the administration of the drug, and it should not be pushed after the first indications of motor relaxation show themselves.

Case II. Hester W., 14 years old, was admitted to the hospital four months ago. For five years, she says, she has experienced great difficulty in retaining her urine; since her admission and for some time previously the incontinence has been almost complete, so that she cannot retain more than a teaspoonful at a time. Her clothes were continually saturated with urine, so much so that upon one of my first visits to her I asked where she had been to get so wet, and she said it was her water; her clothing was soaked almost to the waist as though she had waded through a creek. Her appetite is good, she sleeps well at night and suffers from no pain or other annoyance. She is well nourished and can do as efficient service as any of the other inmates who are in good health. She now wears a urinal bag from which she derives much comfort. Many and various remedies have been given her, kali iod. and bromid., chloral, belladonna, strychnia by the mouth and tonics, but all without avail. A careful examination was made of the external genitals which were found healthy. A catheter was passed into the bladder, but it revealed nothing, except a grating was felt at one point and a distinct sound elicited; she was then turned over to the surgeon to be examined for stone, but none could be found nor any other abnormality. The urine drawn with the catheter was examined, and it was found to be healthy. She has been given strychnia hypodermically for the past two weeks in increasing doses, but thus far without benefit.

This case, while it is by no means unique, is not without interest as showing what serious troubles may exist without our being able accurately to define the conditions which cause them. Thus far treatment has been instituted, not for any known pathological condition, but in the hope that some of the well known remedies used in this affection might be of benefit and possibly clear up for us the causative diagnosis, as we rely upon the administration of kali iod. to clear up the diagnosis in certain conditions. It is more than probable that the trouble concerns the spincter vesicæ, and that owing to its long continuance remedies have failed to give relief.

Case III. Annie B., aged 20, stout and well nourished, was admitted to the hospital, and about July 6 was delivered of a child. Labor was normal, except a slight rupture of the perineum. She did well, with but slight elevation of temperature until the eighth day, when the thermometer registered 104°; at the same time she complained of pain in abdomen and tenderness over right ovary. The temperature continued to increase with evening exacerbations and morning remissions until on the sixth day of the disease it reached its highest point, 106° 2-5. About the third week bed sores appeared on sacrum, and each os calcis; the ulceration of the heels continued until the bones were completely de-

nuded. About the second week she commenced to emaciate, and so continned until she died, after suffering thirty-two days. Her treatment consisted of a full nourishing diet from the first: two quarts of milk, six ounces of whiskey with eggs and beef tea were given daily. The drug chiefly relied on was quinine in doses sufficient to meet the indications. At the outset and throughout the course of the disease the uterus was washed out with a warm solution of bi-chloride of mercury in water in the proportion of 1 to 4000. I notice this case, one of typical puerperal fever, to call attention to the great importance of the thorough and repeated cleaning of the uterus in such affections. A glance at the table will show great irregularity of the temperature and wide variations even in a single 24 hours; this was due, no doubt, to the quinine, but the drug was enabled to do its work from the fact that the parts were kept thoroughly clean and further absorption of the morbid matter prevented. While each will do good service alone, it is by the combination of the two that the best results can be obtained. Once or twice it happened in this case that a marked diminution in the temperature occurred after the uterine injection, the dose of quinine remaining the same. The thorough and continued cleaning of the parts prevents further absorption of the morbid matter and allows us to battle with the enemy without his gaining any fresh accessions to his strength.

Day of Dis.	Pulse.	Temp. M.	Temp. E.
1	105		105
2	109	103 3/5	106
3	97 1/2	100 3/5	105
4	95	102 3/5	104 4/5
5	100	101	105
6	110	101 3/5	106 2/5
7	109	101 1/5	103 2/5
8	117	101 1/5	103 3/5
9	122	101 2/5	104
10	125	101 4/5	104
11	132	102 2/5	103
12	136	102	103
13	146	102 1/5	104
14	154	100	102
15	150	102	104
16	147	101 1/5	105
17	147	100 2/5	102 4/5
18	145	100 1/5	103
19	151	100 2/5	102 1/5
20	145	99 4/5	102
21	144	99 4/5	101 4/5
22	147	100 1/5	102 1/5
23	149	100 1/5	102 4/5
24	145	103 4/5	105

Translated Article.

ON EXTIRPATION OF THE KIDNEY.

ABSTRACT OF A RECENT LECTURE BY PROF. BILLROTH, OF VIENNA.

Translated from Wiener Medizinische Wochenschrift, Nos. 23, 24, and 25, 1884,

BY R. WINSLOW, M. D.

(*Conclusion*).

III. *The Removal of a Healthy Wandering Kidney.*—It appears at first sight as if these indications for extirpation of the kidney were just as precarious as those last mentioned, and yet the cases are somewhat different. In by far the largest number of cases is the right kidney movable, and forms a more or less annoying and distressing infirmity, which, however, can be rendered almost free from danger by a suitable bandage. There are, however, cases in which the displaced kidney drags upon the stomach so strongly and produces such severe nervous symptoms that marasmus gradually sets in, leading to complete inanition. Such cases are frequently sent to Carlsbad with the diagnosis, gastric catarrh, nervous dyspepsia, or carcinoma.

We do not know why the consequences of prolapse of the kidney in one case are so grievous, and in another perhaps very light; so even if the malady is recognized at the beginning we are not in a position to make a reasonable prognosis in regard to its course. A very severe example of movable kidney, the only one upon which I have decided to operate, was the following:

Case II.—A 28 year old woman came with the diagnosis, cancer of the stomach. A progressively increasing dyspepsia had been in existence for three years. She was highly emaciated, and so weak that she could scarcely stand. Formerly by selecting her food she was able to retain it, but for three weeks nearly everything which she has eaten has been vomited. As a very movable tumor could be felt near the pylorus, which was tender upon pressure, I concluded the diagnosis of carcinoma to be correct. When the patient was examined under chloroform the diagnosis appeared to be doubtful, and the probability of its being a wandering kidney was entertained, but having no individual experience, I could

not at that time believe that such intense disturbances of nutrition and continual vomiting could be caused by a displaced kidney. I suspected still a stenosis of the pylorus, and on Aug. 17th, 1881, I made an incision as if for resection of the pylorus. The stomach, pylorus and duodenum appeared entirely healthy. The right kidney placed itself in the wound, and as the dragging which it exercised upon the pylorus appeared to be the only cause of the suffering, I removed the kidney and closed the wound in the usual manner.

The operation neither lasted long nor was the hemorrhage marked, nevertheless the enormously prostrated patient became much collapsed, but improved under artificial heat and injections of wine. At first everything progressed favorably, and the patient took food freely without vomiting, but she died on the 8th day after the operation. The direct cause of death was a rectro-peritoneal cellulitis, with consecutive peritonitis and pleuritis on the left side, which a strong individual with two healthy kidneys might well have recovered from. One will not lightly decide upon extirpation of a movable kidney in badly nourished persons when the suffering is moderate and can be endured. Very much run down individuals can scarcely survive the operation. The statistics of extirpation of wandering kidneys are not very unfavorable. Of 14 cases, 8 recovered and 6 died. Martin, of Berlin, has performed the operation 7 times, the remaining cases being distributed amongst various German and American operators. Death occurs partly from inanition, partly from peritonitis. In 12 cases was the kidney removed by laparotomy, in 2 by the lumbar incision. I hold extirpation of the wandering kidneys to be only a provisional stage in the therapeutics of this malady. Unfortunately the efforts of Hahn, of Berlin, at fixation have had no lasting good results.

Extirpation of Diseased Kidneys.—In this category are included pyonephrosis, hydronephrosis and neoplasms.

I. *Suppuration of the Kidney* is frequently bi-lateral and often threatens life to a marked degree. The extirpation of the kidney which appears most diseased is always to be thought of as a last resource. I have done several operations for pyonephrosis calculosa, and for perinephritic abscess, but no case has yet happened to me in which I determined to extirpate the organ on this indication; I can therefore only communicate what has been done by others in this respect. Czerny considers that one-sided suppuration of the kidney is not very rare, and judges it to be most judicious to open the abscess when first diagnosticated in the lumbar region, and after emptying its contents to thoroughly drain its cavity. If the urine contains no more pus it is highly probable that the other kidney is healthy. In women it can be directly determined whether pus comes out of one or both ureters by catheterization; this, however, is not absolutely certain, as sometimes a valvular arrangement prevents the pus from escaping into the ureter. It can also happen that the urine is clear, and yet an abscess may be found in the kidney. Again, when a urinary fistula has been formed and pus and urine escape from the incision, pus may still be found in the bladder, so that a contemplated extirpation of one kidney must be given up on account of disease of the other organ, and the condition of the patient is rendered worse by the presence of the urinary fistula. When one ponders all these circumstances and considers that the extirpation of a suppurating kidney is very difficult, on account of the strong adhesion to the surrounding parts, and that the flowing of the decomposed pus over the fresh operation wound can not always be prevented, it is astonishing that this operation has been done succesefully 22 times, and only 18 times has death resulted. Of the latter, many lived several weeks and finally died of inanition or from disease of the other kidney. The cases of pyonephrosis naturally are grouped into those with calculus, those without calculus and tubercular suppuration.

II. *Nephrectomy on Account of Hydronephrosis.*—The indications are controvertible. 1st, because hydronephrosis seldom is fatal, and 2nd, because they can sometimes be cured by other means; for example, by injections of iodine, or by incision. These cures are, however, very questionable. Most of the communications permit the conclusion that the cysts after these operations had been decidedly shrunken, but the possibility of a relapse is not excluded, but if the sack remains for many years reduced to a minimum it is a favorable though not a perfect result. The ana-

tomical conditions of the hydronephrosis sack, the relation of its contents to the ureter, the signification of the chemical analysis of its contents, in which neither urea nor uric acid are entirely absent, the diagnosis by palpation and percussion are all right difficult matters about which I will not say more at present. This is, as is the diagnosis of abdominal tumors in general, a contribution to the history of diagnostic errors, which demonstrate to us the boundaries of our art. Of signification is it that most of these operations would scarcely have been attempted if the tumors had not been mistaken for ovarian cysts. This happened in a case operated upon by me. The most skilled operator will be puzzled in cases in which an operation in technical respects turns out quite different from what he expected. One, indeed, is wont to say subsequently, I would rather not have performed the operation at all, or would have done it quite differently than was possible under the given circumstances.

In the last mentioned case I only recognized that I had removed a hydronephrosis in the last moments of peeling out the cyst, by the discovery of a large artery which I recognized to be the renal artery. I sought now in vain for the lacerated ureter, but, not being able to find it, could not apply a ligature to it. It is not certain that in such conditions urine could not escape from the bladder through the ureter; perhaps this explains the rapidly occurring fatal septic peritonitis in our case. Altogether 9 hydronephroses have been extirpated undesignedly with the diagnosis of recto-peritoneal ovarian cysts, of which 6 recovered, 3 died. As you see, the result is not unfavorable in spite of the existing difficulties. Perhaps this circumstance is favorable, that these organisms have already become accustomed to excreting their urea and uric acid with only one kidney.

III. *Nephrectomy on Account of Neoplasm.*—Thirty-three operations have been performed, with twenty deaths and only thirteen recoveries. This is the only class in which the number of deaths exceeds the recoveries. We cannot be astonished at this if we consider what has been dared in this respect. Tumors twice the size of an adult's head, in wornout elderly individuals, enormous medullary sarcomata in wretched children have been operated upon, and many of these died upon the table. It appears to me that we have gone too far in this direction. I have had the good fortune to save both cases operated on by me.

Case III. A Hungarian peasant woman, 38 years of age, large, strong, well nourished and previously always healthy for five years, had noticed a swelling in the right side, with slight but persistent pain. The pain for a long time was endurable, although the swelling gradually increased in size. In the course of the last year after the immovable tumor had rapidly grown to the size of a man's head, the suffering increased to such an extent as to render the patient unfit for work. After a more careful examination, I believed I had to deal with a retroperitoneal fibroma, which had been detached from the uterus or the right ovary, of which I have seen several. The possibility of a renal neoplasm was considered, notwithstanding that such slowly growing kidney tumors are great rarities; it is, however, always dangerous to depend upon rarities in points of diagnosis. The urine contained some albumen but no casts. This happens in retroperitoneal tumors often enough and has at most a purely mechanical cause. Formed elements and blood were not found in the urine. The extirpation was performed January 5th, 1883. After opening the abdomen by means of a long incision, the presenting intestines were pushed backwards, the peritoneum over the tumor split lengthwise and the kidney released with the hand. The smooth surface of the tumor showed many large veins, and in spite of every care some of them were torn; although I could raise the tumor, still a thick pedicle held it fast at the bottom. The bleeding was very severe, so I quickly secured the pedicle with an elastic ligature and I cut the tumor off, during which a smooth walled cavity was opened, from which clear fluid escaped. After all bleeding vessels were seized and ligated, we had leisure to inspect the pedicle more closely, and recognized to our no little astonishment the dilated pelvis of the kidney; the removed tumor was the degenerated right kidney. The pedicle just above the ligature was now compressed with my large clamp, several times ligated in the clamp furrow and devided with Paquelin's cautery. The peritoneal cavity was cleaned, and after introducing two thick drains was closed with sutures. The patient was discharged six weeks after operation. To a

recent inquiry I received the satisfactory answer that she continues quite well. This pleases me the more as the extirpated tumor was a myxo-sarcoma which often recurs after removal.

Case IV. A man, 33 years of age, healthy and strong until the present sickness, was operated upon by the lumbar incision February 16th, 1884, on account of a tumor of the kidney as large as three fists. The after course of the operation was favorable, though convalescence was somewhat protracted. The tumor was probably an interstitial papilloma proceeding from the malpighian capsules and glomeruli.

Both cases are types for the technique of abdominal and lumbar extirpation of the kidney, about which I will now make a few remarks. My experience confirms thoroughly the views of Czerny (who, of all living surgeons, has performed the most nephrectomies, viz., 18), that the extraperitoneal operation by means of the lumbar incision is to be preferred when possible, and the incision of Simon at the border of the musc. quad. lumborum, downward and forward, about two fingers' breadth above and parallel to the crest of the ilium, which can be enlarged as far as the spermatic cord itself. In this way sufficient room is gained for the removal of quite large tumors. I have convinced myself that the transversely divided muscles and fascia unite very well with an appropriate suture, but I will not assert that this incision is to be preferred to the vertical, when that gives sufficient space. The removal of a normal kidney on the cadaver is not difficult, and on the living individual the accompanying bleeding can usually be arrested by moderate pressure with a sponge. In removing suppurating and neoplastic kidneys, it is necessary to be very cautious and not proceed too rapidly, so that bleeding vessels can be seized and ligated. The ureter is such an attenuated structure and lies so differently in pathologically degenerated kidneys, that one can seldom know where and when he will stumble upon it. One must attempt first to release the whole circumference of the kidney before coming to the deep lying parts, so that the kidney can be drawn forward and the operator can convince himself of the position of the ureter and of the renal artery and vein. The passing of a strong ligature is here of the highest importance; it is the most important step of the operation. If the renal artery and vein are torn, or the ligature does not hold securely, there is indeed "periculum in mora;" the bleeding is enormous and only the quick seizure of the retracted vessels with a safe clamp, behind which a ligature is laid anew, can save the patient. The large wound cavity contracts quickly after removal of the kidney through the retraction of the intestines, as well as by the sinking of the pancreas and of the spleen. Two large drains are sufficient to carry off the wound secretions. Widely complicated is nephrectomy by laparotomy; here the same principle holds good as in extirpation of all retroperitoneal tumors: where possible to leave no open wound in the peritoneum. If I do not err, Mikulicz first formulated the sentence that fresh wound surfaces, whilst they can absorb somewhat, still secrete more than absorb. The bloody serum which is removed in the first hours is an especially favorable fluid for the development of bacteria and the production of intense septic poison. This has been already empirically correctly recognized by Spencer Wells and Marion Sims, and lead the latter to employ the most thorough drainage of the peritoneal cavity. One must as much as possible prevent the formation of this bloody serum by rigid antisepsis and exact hæmostasis; in favorable cases this secretion will be encapsulated by the quick formation of fibrin, but in unfavorable cases it will be immediately absorbed by the peritoneum, and the patient sometimes very rapidly poisoned. We should also suture all lacerations and splits of the peritoneum from wounds, and conduct the secretion from the wound cavity when possible, through drains brought out behind. If one has divided with the knife the part of the peritonenm which covered the tumor, he ought, after the removal of the tumor and the arrest of bleeding, to perforate the belly walls behind or at the side and introduce one or two drains; if this is not possible he ought to drain forwards as in our next to last case, but the peritoneal wound must be sutured carefully right up to the tube so that before the closure of the abdominal wound the cleansed peritoneal cavity shows no wound surface? One must determine during the course of the operation whether this can be done; if it cannot be done the result will always be doubtful. Considering the many tumors occurring in the abdomen and the uncertainty of the

diagnosis in many of these cases, it is said, correctly, that surgical procedures can be successful in only a few cases, even though these operations should attain to still less direct danger to life than at present, on account of a wider experience. On the other hand, it must be considered that without operation the therapy in most of these cases can only be dietetic and symptomatic. It is the problem of our time to ascertain more precisely the cases in which surgical procedures can bring relief. If we have here and there pushed forward the borders of our surgical domain too far, we can, after further experience, again contract them without mortification, in order to fortify them the more securely.

If surgeons did not at present imagine themselves to be entirely too powerful fellows, but would modestly follow in indefatigable investigations and combinations the example of internal medical clinicians, they would succeed in effecting more cures, or at least an amelioration of the sufferings of unfortunate human beings for some time. This is, and remains to the end, the purpose of our common scientific and humanitarian efforts, and the final object of our noble professional calling.

Society Reports.

THE SECOND SANITARY COUNCIL OF MARYLAND.

MEETING HELD AT THE BLUE MOUNTAIN HOUSE, MARYLAND, SEPT. 17TH, 18TH AND 19TH, 1884.

(*Specially reported for Md. Med. Journal.*)

The Second Sanitary Council of Maryland, under the auspices of the State Board of Health, began its sessions at the Blue Mountain House, Md., on the evening of September 17th. The meeting was called to order by ex-Governor John Lee Carroll. Owing to the absence of Prof. R. McSherry, the President of State Board of Health, on account of sickness, the address of welcome he had prepared was read by Dr. C. W. Chancellor, Permanent Secretary of the Council. Prof. McSherry began by stating that all who were present, irrespective of occupation, were present on a common ground for the common good. He then made reference to a few matters of prominent interest. If good food, pure air and pure water were in every community, he claimed that one-half of the diseases therein prevalent would disappear at once and forever. Good food implies not only the substantial elements which nature furnishes so abundantly, but also as supplementary to natural art, that is, the food must be well prepared and well served.

"It has been said that God sends us food, but the devil sends cooks. The ladies must come to the rescue, not necessarily to brown their own fair fingers over pots and kettles and ovens, but to such intelligent superintendance that all the family shall find at the table the daily bread light and sweet and wholesome, and all its accompaniments, baked, boiled, stewed or roast, no matter how few or how plain the dishes, so well cooked as to please the palate and not distress the stomach. The preservation of this organ in good condition is of prime importance in health and contentment. Pure air, such as we have here at Blue Mountain, is not easily obtained in cities or in malarious districts, or even in country houses with good surroundings, where ventilation is defective. Architects, engineers and plumbers must co-operate with the doctors in this matter."

Referring to the subject of infant mortality, Dr. McSherry attributed the majority of deaths during warm months to foul air. He thought scientific sewerage could accomplish a good deal in correcting this scourge, but he did not think that it is proved yet that sewerage is the final and complete remedy.

"Malaria is subject to correction, and so far as country homes go, or any homes, it holds to reason that proper measures should be in daily use, especially during winter, with artificial warmth, to let fresh air in and foul air out of the house. This seems to be a truism not worth saying, but I have gone into hundreds of houses where such simple precaution is entirely ignored. By pure water we do not mean water chemically pure, but water free from noxious ingredients. Very many diseases are propagated by impure drinking water. Cholera, typhoid fever, intermittent fevers, intestinal worms and numerous other affections befall our race from polluted water. Boiling and filtering are good correctives of water in

the house, but so far as practicable polluted water should never gain admittance.

"The rivers that supply cities should be watched with the most jealous care to save them from all kinds of filth—animal or vegetable—and in villages or about country homes it should be seen that there are no surface washings or underground channels conveying to the well or spring organic remains or other impurities from adjacent sources—as the barnyard, the privy, or pig-stye."

Dr. McSherry referred next to the ruinous method of education as now pursued. He said: "There is too much school-room crowding in every sense. The number of pupils is too great generally for the room occupied, but this crowding is certainly not worse than the cramming attempted with a multiplicity of studies. Every physician observes how much injury is done to children by the course pursued both to the mental and bodily faculties. If the design is to break down teachers and scholars, especially the growing girls, it is being duly accomplished; but if it is to invigorate mind and body, it is unquestionably a failure. The mind and the body are very closely allied, there being between them such correlation of forces that the solid invigoration of the one helps the other, and the impairment of the one damages the other. This is a subject very worthy of the consideration of the convention.

"The final matter to which I will refer is the devising of some means by which a certain social canker may be kept from desolating American homes. The ostrich, it is said, hides his head that he may not see or be seen, when pursued by his enemies. But it does not save him. Neither will closing the eyes on the part of the community put any check to the progress of a monstrous evil which is threatening the very vitals of society. Legislation must be brought to bear, not to make all this world virtuous, but to keep moral lepers from contaminating virtuous families. Verbum sap. The Board of Health is an executive body, and we invite you as counsellors and experts, to give it your opinions, your advice and information upon the various special and technical subjects bearing upon the great cause in which we are engaged."

Address of Governor Carroll.—Ex-Governor John Lee Carroll said that in accepting the very high honor of presiding over the council he had but one regret, and that was his inability to throw any light upon the important questions which were under consideration. He was present in obedience to that spirit which should grow strong among all classes of our citizens, that however important may be the duties we all owe to the body politic we can entertain no higher purpose than that of sustaining the proud and charitable efforts of those who are striving to improve the physical condition of the communities in which we live.

"The names of the great leaders of science who have worked out problems by which man is in a measure relieved of suffering, will live in history when the memory of heroes of other fields has passed away, and the whole world looks to-day with interest at the results of that study which seeks to confine pestilence within the narrowest limits and thus to break the force of the greatest evils which afflict mankind.

"No one can read without the keenest sympathy the progress of the cholera thro' the fairest portions of Italy, and while we stand in admiration at the sacrificing spirit of her noble King, who in the midst of this carnival of death is there in person to cheer the timid and to give comfort to the afflicted, one cannot but feel that the practical application of the rules of health would have averted this great sorrow and turned into other channels the most fatal epidemic of modern times.

"Who can doubt that Paris to-day would have been in mourning for the loss of thousands of her people had it not been for the discipline of science and the stern efforts of her boards of health, which make the methods of preservation even more important than the questions of cure. Now if this be so, what a solemn warning there is to us in the truth of the assertion, and how surely may we become the victims of disease if we neglect the system by which alone it may be averted. The labors of our State Board of Health, although of comparatively recent origin, have not been without fruit. The energy of its permanent Secretary in visiting infected districts and in seeking out the hidden causes of disease has brought confidence and relief to stricken portions of the State, and has often inspired the local authorities with the deter-

mination to remove the flagrant causes of suffering.

"There can be no doubt as to the value of constant inspection and supervision, and this can only be brought about by the public support of an institution fostered earnestly by the State.

"It is to encourage this sentiment that we have met here to-night, and the production of the important papers which will be presented to the world cannot fail to strengthen the cause and to satisfy the public as to any expenditure which is made in its behalf."

The first paper was read by Dr. Jackson Piper, of Towson, Md. It was entitled "Diphtheria—Its Local and Sanitary Treatment." *Dr. Piper* began by referring to the indifference which legislators and others manifested towards vital sanitary matters. He argued the need of diffusing general knowledge on sanitary subjects, so that the public may know and force its executive servants to measure up to the requirements of every-day life. Dr. Piper cited cases from his own practice to prove the spontaneous origin of diphtheria in filth.

"Such cases," he said, "admonish us to thoroughly scrutinize our surroundings, to keep away from diphtheritic patients and their attendants, to disinfect thoroughly the clothes and excreta, and instant removal of the well from the infected house, or if the latter is impossible, outdoor exercise, and sleeping-rooms with open windows the most distant. A mild case can cause a severe one, and the disease can be carried by the healthy. Perfect isolation for the sick and their nurses, and cleanliness in the latter as to their hands, hair and clothes. The temperature of the well to be taken once a day, and in this connection all families should keep self-registering thermometers, as life-saving instruments, giving timely warning of danger, and proving a valuable aid of information to the physician; unnecessary petting of the patients, kissing them, or talking over diphtheritic wounds forbidden; attendants to insert cotton in their nostrils, to be changed frequently, to prevent ingress of poisonous material; air of room cool, and bedding and patient's clothes to be kept fresh, and after convalescence a warm bath with carbolic soap and fresh clothes in another room; private funerals, and speedily over; to fumigate the rooms and their contents by burning sulphur, and to burn the bedding and all useless articles. The stamping-out process is full of trouble and expense, but it is the best and safest. To whitewash or repair walls, to wash and revarnish the furniture and woodwork, and to scour the floors, using strong carbolic soap.

"Disinfection by carbolic acid was shown to be impracticable from experiments made by Dr. George U. Sternberg, United States Army, owing to the very large quantities required and the expense in destroying fever germs. Brimstone, copperas and white vitriol were cheaper, more efficacious and more easily applied."

The prevention of diphtheria by the administration of drugs was considered. Chlorate of potash, sulpho-carbolate of soda and salicylic acid had been used successfully not only in diphtheria, but in scarlet fever and measles. Referring to the question of treatment Dr. Piper said:

"Some four years ago, after much discouragement, which was further increased by a letter from the late Dr. Riggin Buckler coinciding with the writer, he hailed with a gleam of hope Oertel's local method as detailed in Ziemssen's Cyclopedia. This consists in the constant and vigorous use of steam medicated with chlorate of potass. (10 to 15 grains to the ounce of water) or table salt, and applied *directly* to the diseased surfaces by inhalation, hourly or half-hourly, according to the gravity of the case, each sitting to occupy fifteen to twenty minutes—the patient to sleep only three or four hours for the first twenty-four and forty-eight hours, and as the membrane commences to be thrown off six to eight hours sleep may be allowed. The inhalations to be practiced afterwards every two, four or five hours until the throat is perfectly clear. This treatment to alternate when improvement begins, but not too soon, by spraying with lactic acid, twenty drops to the ounce of hot water, or by gargling or mopping the throat with dilute chlorine water or carbolic acid or permangate of potass., 2½ grains to the ounce. The instrument used is a chafing dish with deep sides, or a quart tin can, a piece of canvas five or six feet long, some pasteboard, a tripod and a spirit lamp with three burners. These are readily obtained and easily arranged. The canvas tapers off in a mouth-piece, into which is inserted a tube of paste-

board, which can be shortened or lengthened as the steam is too cool or too hot, and the heat may be further regulated by blowing out a burner or two, taking care that the steam is as hot and full in volume as the patient can *possibly bear*. By pressing the mouthpiece close to the mouth, the little patient's face will not be irritated by the steam. I have not lost a patient (some 22 cases) since using this method, and I lost patient after patient on the old methods. Several of the recoveries were severe cases of the catarrhal form; one desperate case of the croupous, with a severe relapse; one laryngeal, with complete extinction of the voice and great oppression of breathing, and one septicæmic. The old plan of using steam, as described by Dr. Jacobi and Dr. Aitken, and others, is stupid, inefficient, and dangerously depressing. A room kept constantly moist with vapor, a tent over the crib saturated with steam, is steaming the patient and not the disease, and is a total misapplication of the principle. My patients recovered in a remarkably short time, five days being the longest period. The old plan runs them a week or more, and finally carries them off by blood-poisoning. Many die within three days. Oertel says that the use of astringents, disinfectants and caustics cannot penetrate, dissolve or destroy the membrane without increasing the disease by the irritation they cause, and that steam, by producing suppuration, detaches the membrane and causes its expulsion. This is how nature brings about a cure.

"The same principle is applied by poulticing in various diseases, particularly in the removal of crusts in milk crust, rupia, ecthyma, etc., so that astringent and alterative lotions may touch the diseased surfaces. The steam treatment is full of trouble, and is very irksome and disagreeable to the patients, but kindness, firmness and perseverance will conquer. It is the life or death of those most dear to us that we are fighting for, with not a moment to spare. I believe in the germ theory, and that the constitution only becomes affected after the bacteria act as local irritants, and that the poison of these parasites being absorbed, blood-poisoning is the result. The constitutional treatment, therefore, is equally as important as the local, which consists in the free use of brandy, beef tea and other soups, and in the use of quinine, muriated tincture of iron: chlorate of potash, and special indications are to be met by their appropriate remedies."

The next paper was read by *Dr. George H. Rohé*, of this city, on "Dangers in Food." Dr. Rohé discussed at some length the various ways in which foods were made unwholesome, and how this could be prevented.

The subject of milk was discussed as follows:

"In my opinion the milk of swill or slop-fed cows may be as rich and wholesome as any other milk, provided the cows are housed in clean, dry, and well-ventilated stables, and often turned out to pasture. The danger does not lie in the food of the animal, but in the character of the animal's surroundings. If our city or suburban dairymen could be made to understand the importance of this, the outcry against 'swill milk' would soon lose its effect. As things are at present, it is based upon a real danger. The milk of cows suffering from the so-called cattle plague, contagious pleuro-pneumonia or foot-and-mouth disease is also said to produce illness when drunk. The symptoms are generally referred to the gastro-intestinal tract. There seems no room to doubt that the flesh of animals suffering at the time of death with splenic fever, foot-and-mouth disease, symtomatic anthrax and contagious pleuro-pneumonia will, if consumed, produce serious or fatal diseases in the consumer. It is well known that the use of meat containing animal parasites, such as trichina spiralis, echinococcus or cysticercus will often result in very grave affections in persons eating such meat, especially if not properly cooked. It has been shown beyond question that the flesh of beeves suffering when killed from splenic fever will produce this disease in the human subject.

Dr. Rohé discussed at some length the different measures for preventing dangers in foods. He said:

"Maryland has passed laws in the interest of the consumer looking to the detection and prevention of fraud in the sale of food. The compulsory inspection of canned oysters is one of these beneficent acts. There is, however, no provision in the statutes, so far as I am aware, which protects the consumer against diseased or tainted meats, adulterated or diseased milk, or poisonous canned food.

"The State must inspect, through competent agents, all articles sold as food which are liable to produce disease. The milk, cheese, meat and fish must be regularly inspected before being offered for sale. All food animals must be inspected both before and after slaughter, and the sale of diseased meat strictly prohibited. Splenic fever, contagious pleuro-pneumonia, foot-and-mouth disease, cattle or swine plague, can be detected in animals suffering from these diseases. After death the gross and microscopic pathological conditions will give similar information. Pork should always be examined microscopically for evidences of trichinæ and cysticerci. It is manifest that such inspection cannot be carried out in a city unless the slaughtering is done at a limited number of places. A centralization of the slaughtering business will be necessary.

"The sanitary inspector of food should also ascertain the conditions under which milk-giving animals are housed and cared for, and whether care is taken to prevent infection of milk by the germs of specific diseases. The mere physico-chemical examination of milk, as practiced in some cities, can only prevent fraud, but is no safeguard against diseased milk.

"It is clearly evident that a person competent to intelligently perform the duties required of the official here denominated the inspector of food, cannot be found among those who seek position merely as a reward for party service, or because they have political influence. The inspector must not only be a physician or veterinarian, but he must be familiar with the principles and practice of preventive medicine, and must possess, above all else, common sense and sound judgment.

"But the mere inspection of food will not be sufficient to prevent the dangers which exist. Power must be given the health authorities to take such action as is necessary to protect the public. If loss results to individuals through no fault of theirs, the State must reimburse them. Vested rights must be respected, and legitimate business must not be obstructed or otherwise injured. If any one, however, wants to prosper at the expense of the health of his fellow-man, let him suffer a just penalty.

"Among the individual prophylactic measures against unwholesome food, the first is to reject all articles which, from their appearance, taste, or *price*, are open to suspicion. Uncleanliness, beginning decomposition, unusual taste, odor, or appearance of food, should be sufficient reason for avoiding its use. Pork should always be sufficiently cooked in order to destroy the life of trichinæ or other parasites, and this procedure will likewise render poisoning by diseased meat of other kinds less likely to happen. Milk infected by the germs of various diseases will probably lose its infective character after thorough boiling, although too much confidence must not be placed in this. In selecting canned goods, those cans which are swelled out at the ends, showing partial decomposition of the contents, or which exhibit evidence of having been reprocessed, which is easily detected by the presence of a second sealed vent in the cap, should be rejected. It would also be safer to avoid the use of any canned goods which have been put up longer than one year. There seems good reason to believe that most cases of poisoning by canned foods have resulted from articles which had been kept a long time. Any personal idiosyncrasy concerning an article of food should be sufficient to enjoin its use. Shell fish should not be eaten out of season."

SECOND DAY, SEPT. 18TH.

The second day's sessions of the council were more largely attended than the session the evening before. A number of papers were read and discussed.

NEED OF A MORGUE.—Dr. John Morris, of this city, read a paper setting forth the necessity for a morgue in Baltimore. Baltimore, he said, is, perhaps, the only large city in the country without an institution to protect the bodies of unknown and unclaimed dead. This condition of things was considered a gross violation of decency which may lead at times to the obstruction of justice. Dr. Morris gave numerous illustrations of the inconveniences which resulted from the absence of a city morgue, and he urged the convention to appoint a committee to bring the matter before the City Council.

Dr. Jas. A. Steuart endorsed Dr. Morris' views and referred to his efforts, as Health Commissioner, in trying to have a morgue erected. He said that after having bills twice passed for the erection of a morgue, they were both times vetoed by the Mayor,

who at one time excused his veto by saying it was a luxury, and not a necessity.

A committee of five, consisting of Drs. Morris, Jas. A. Steuart, C. W. Chancellor, A. B. Arnold and G. H. Rohé was appointed to call the attention of the City Council to the necessity of erecting a morgue.

"Typhoid Fever in Elkton" was the title of the next paper, which was read by Dr. C. W. Chancellor. Elkton is a village situated on the Philadelphia, Wilmington and Baltimore Railroad, fifty-two miles from Baltimore. About the middle of July last there was an outbreak of fever in the town. After investigating the usual sources from which this disease is most likely to have proceeded, Dr. Chancellor traced the origin of this epidemic to a dairy, which was shown to be the direct cause of the trouble. A well was found contaminated with sewage, and the water from this well used in cleaning cans was the medium through which the diseased germs found their way into the milk. Dr. Chancellor called especial attention to the importance of using pure water for dairy purposes, as well as for drinking purposes. He gave facts to show that impure water either directly or indirectly aids in disseminating two of the most fatal diseases which affect the human race, typhoid fever and cholera.

A paper was read by Dr. Jas. A. Steuart, Health Commissioner of Baltimore, entitled, "Are We to Have Cholera, and How to Prevent It." Dr. Steuart was of the opinion that effective quarantine was salutary in warding off pestilence, but he held that the real danger is from passengers and baggage embarking from a non-infected port in a ship bearing a clean bill of health and having had no sickness on board during the voyage, but who came from infected interior places where cholera prevails. No amount or character of inspection of persons alone will suffice to prevent the importation of cholera to this country while the disease exists in Europe. Dr. Steuart concluded that the disease could be warded off, and that cleanliness, pure air, pure water, careful feeding and proper clothing constitute a barrier against the disease under all circumstances and in all places.

Referring to the question, Shall We Have Cholera in Baltimore? Dr. Steuart said:

"I may answer with confidence that the conditions which obtain in Baltimere are decidely antagonistic to the development of a serious epidemic of cholera. With the exception of a few old pump-wells (a most pernicious remnant of antiquity), which must be condemned and done away with in spite of the ignorant prejudice in their favor, the water supply of Baltimore is exceptionally pure and abundant, and coming as it does from a long distance through tight conduits, the chances of impurity are reduced to the minimum. The habits of our people taken en masse are cleanly and our food supplies abundant and generally wholesome. The streets are clean, and the removal of offal and excreta is well regulated. The undulating surface of our city facilitates rapid drainage, and the air, in general, is pure and healthful. The quarantine department of Baltimore is second to none in the country—appropriately situated, completely equipped, and under the control of a capable and conscientious medical officer. It has been observed in all epidemics of cholera that fear or panic enters largely as a factor into the elements of danger. This must, if possible, be counteracted; first by precept, and secondly by example, the constant reiteration of instructions through the public press and otherwise, and by the calm, intelligent and steady behavior of those who are looked up to by the ignorant and timid for aid, council and support. 'The true remedy against cholera is preventive medicine.'"

"The Relation of the Medical Profession to Sanitary Work" was the title of a paper read by *Dr. A. B. Arnold*, of this city. Dr. Arnold first referred to the debt which the medical profession owed to sanitarians for many important suggestions and facts relating to the prevention of disease, and he then discussed the value of the work the practitioner might do in promoting the ends of sanitary science. The general practitioner enjoys peculiar opportunities to correct popular prejudices in relation to sanitary rules. Many erroneous beliefs prevail among a large number of people concerning questions of health. Dr. Arnold urged the profession to diffuse useful knowledge and to educate the people in such ways and means as guard against the insidious inroads of sickness.

Dr. E. M. Schaefer read a paper which was entitled "The Twin Evils, Quackery and Patent Medicines."—The object of this paper was to show the evil results of

quackery. He concluded with the following points: "1. Quack medicine is the most expensive kind to the purchaser. A medicine selling for fifty cents and properly advertised, must not cost over ten cents to be profitable. 2. Successful nostrums are composed of well-known remedies, and are often stolen prescriptions. 3. It is almost impossible for anything new to be discovered outside the regular ranks. What quack found out vaccination or patented chloroform?" He charged the clergy and religious press not to be the dupe of these ignorant pretenders, who value only too well the protection of a holy mantle.

"The Relation of the Press to Sanitary Work" was discussed by Mr. James R. Brewer, of the *Evening News*. Mr. Brewer considered it the duty of the press to arouse the public to a sense and appreciation of its danger from neglect and dirt, and to convey to it the first and fullest information as to the best means to avoid and escape disease; to explain the proper methods of ventilating buildings, and describe the newest discoveries, inventions, remedies or suggestions in that direction.

"What Shall We do With Our Dead" was the title of a paper read by *Dr. St. George W. Teackle*, in which he held that our present mode of disposing of our dead, from a sanitary standpoint, is absolutely defective. Dr. Teackle attempted to show that the cemeteries and burying places in and around large cities were, as a rule, dangerous to the health of communities.

The subject of cremation was considered, and the adoption of this method was preferred as the most satisfactory way of returning the dead body to inorganic elements.

Editorial.

Relapse After Radical Operation for Carcinoma of the Uterus.—In this country much objection has been raised against the operation for the radical extirpation of carcinoma of the uterus, on the ground of the extreme danger of the operation and the speedy relapses of the disease. It is generally held that the several measures employed for the relief of the patient far overbalance any temporary benefit which may result to her. Whilst a superficial view of the results obtained by this operation go to strengthen this opinion, a critical examination of statistics will show much larger gains. We have seen no statement of results from American surgeons, but an examination of the material observed at Professor Schrœder's clinic inspires more confidence in the benefit of this operation. Dr. Hofmeier, of Berlin (*in the American Journal of Obstetrics*, September, 1884), presents the statistics of 812 cases treated in Professor Schrœder's clinic and practice. Of the 812 patients, 160 were adjudged fit subjects for the radical operation, which was performed according to various methods. Altogether 31 died of the immediate consequences of the operation. In 105 cases simple vaginal or supra-vaginal amputations were performed, with 13 deaths. Among them were 13 cases in which the actual cautery was applied to the wound surface after the amputation. In 8 cases Freeund's total extirpation was done, with 5 deaths; in 34 cases vaginal total extirpation, with 9 deaths; and in 13 supra-vaginal amputations for carcinoma of the body, by laparotomy, with 4 deaths.

At the expiration of two years after the operation 129 were still living, 28 being healthy after two years, and in many of the latter good health had been demonstrated for three, four and even five years. These results are considered by Dr. Hofmeier as highly favorable.

According to the several modes of operation, the results appear as follows: There remained in good health after two years,

1. After the supra-vaginal amputation of the body of the uterus, 80 per cent.
2. After Freund's operation (only 3 cases surviving), 33 per cent.
3. After the vaginal total extirpation, 33 per cent.
4. After the vaginal and supra-vaginal amputation, 30 per cent.
5. After the amputation with subsequent actual cautery, 42 per cent.

Dr. Hofmeier concludes from these results that the bloody radical operation for uterine carcinoma should be attempted by all the operative methods in cases which still offer any prospect of success; but he holds that in doubtful cases it is better to employ the palliative operation with an energetic application of the actual cautery.

The Corrosive Sublimate Solution in Obstetric Practice.—The many advan-

tages which the corrosive sublimate solution posseses over carbolic acid as an antiseptic wash in obstetric practice invest the use of this agent with the greatest practical importance. It has already been shown in this *Journal* that this apparently harmless agent may possibly become a cause of great danger. It has been shown by the German experience that solutions having a greater strength than 1:1000 involve serious risk just in proportion as the strength of the solution is increased. Cases of sublimate poisoning have been reported by Hofmeier, of Berlin, Stadtfeldt, of Copenhagen, and Stenger, of Manheim. In a recent article on this subject, Hofmeier (*American Journal of Obstetrics and Diseases of Women and Children*, September, 1884) gives the histories of two additional cases, from the Berlin clinic, which throw new light on the circumstances under which the danger of this agent is augmented. In each of these cases renal disease was observed, and in the patient having the most pronounced kidney changes death resulted. The inference drawn from these cases is that pre-existing kidney disease had materially affected the condition for the worse. Owing to the intense influence on the kidneys in poisoning by bichloride of mercury, Hofmeier thinks it exceedingly dangerous to employ corrosive sublimate in patients whose kidneys are not absolutely sound. In each of the cases mentioned the strength of the solution was only 1:1000. The practical importance of Hofmeier's suggestion is regarded in Schroeder's clinic where the use of the sublimate has been strictly eschewed in cases of such complications.

The Late Sanitary Convention.—The Secretary of the State Board of Health of Maryland is to be congratulated upon the very conspicuous success of his efforts to secure general interest in the late Sanitary Convention, held at the Blue Mountain House, September 17-19. The diversified character of the attendance and interest is shown by the number of professions and employments represented by those taking part. Among the participants were civil engineers, lawyers, physicians, druggists, plumbers, editors, clergymen, sanitarians, veterinarians, farmers, merchants and public officials. To have drawn together outside of a large city an assemblage representing such diverse interests, especially at this season of the year, indicates a growing sentiment upon the subject of sanitation. We have always urged that this is the proper way to popularize sanitary science. However much interest the medical profession may feel in the subject, as long as this interest is confined to them but little advancement is to be expected. Probably no part of this country is to-day so enlightened in sanitation as the State of Michigan, and this result is to be attributed chiefly to the influence of such meetings as that in question, and to the enlightened and zealous efforts of the Secretary, Dr. Baker.

Proof of the Cholera Bacillus.—Dr. Koch considers that but one thing is lacking to complete the evidence in favor of the etiological significance of his comma bacillus—that is the production of the disease by inoculation with it in the lower animals. The bacillus is constantly present in the intestines and in sufficient numbers to account for the disease, and it has properties peculiar to itself; furthermore, its discoverer has failed to find in other affections an organism precisely like it. In its non-communibility to lower animals this disease bears a resemblance to typhoid fever, leprosy, syphilis, and other diseases. In some of these, however, as leprosy for instance, organisms have been found of which it can scarcely be longer doubted that they are the causative agencies. Upon this point the Editor of the *British Medical Journal* remarks: "In every single instance in which infectious diseases have been found to be communicable from animal to animal, it has been demonstrated that when micro-organisms are constantly present at the seat of the disease in sufficient numbers to account for the disease, possessing definite characteristics marking them out from other micro-organisms, and not present in other diseases, these micro-organisms are undoubtedly the cause of the disease."

Isolation in Leprosy.—There is undoubtedly a growing sentiment in favor of isolation in cases of leprosy. This tendency has received a great impetus in the discovery of the bacillus lepræ by Hansen. Recently Dr. Vandyke Carter has discovered this organism in leprous tissues in Bombay. He regards the disease as a chronic infectious one, and recommends

three modes of isolation either separately or combined, viz:

1. By asylums which may serve as common refuges for several districts.

2. By leper colonies at deserted forts or decayed villages where a certain amount of liberty may be permitted the lepers.

3. By strict isolation at their homes.

He insists especially on the separation of the sexes. The subject is one of great importance, even in this country, where leprosy is of comparatively rare occurence, and it is probable that the views now prevailing in regard to its mode of origin will lead to some systematic efforts among us to prevent its increase.

Miscellany.

The Medical Society of Virginia, which held its Fifteenth Annual Session at Rawley Springs, Va., on Sept. 9th, 10th, and 11th, elected the following officers for the ensuing year:

President.—Dr. Samuel K. Jackson, of Norfolk, Va.

Vice-Presidents.—Dr. Jesse Ewell, Sr., of Hickory Grove, Prince William County; Dr. Benjamin Blackford, of Lynchburg; Dr. R. I. Hicks, of Casanova, Fauquier County.

Recording Secretary.—Dr. Landon B. Edwards, of Richmond.

Corresponding Secretary.—Dr. Hugh M. Taylor, of Richmond.

Treasurer.—Dr. R. T. Stover, of Richmond.

STATE BOARD OF MEDICAL EXAMINERS.

First District.—Drs. S. W. Carmichael, of Fredericksburg; O. B. Tinney, of Onancock; W. W. Douglas, of Middlesex County.

Second District.—Drs. Thomas B. Ward, of Norfolk; L. Lankford, of Bowers, Southampton County; Jesse H. Peek, of Hampton.

Third District.—Drs. R. A. Lewis, of Richmond; Charles R. Cullen, of Richmond; O. A. Crenshaw, of Richmond.

Fourth District.—Drs. William J. Harris, of Nottoway; Hugh Stockdell, of Petersburg; J. Herbert Claiborne, of Petersburg.

Fifth District.—Drs. W. L. Robinson, of Danville; T. B. Greer, of Rocky Mount; and Rawley W. Martin, of Chatham.

Sixth District.—Drs. Harvey Black, of Blacksburg; H. Gray Latham, of Lynchburg; and Oscar Wiley, of Salem, Roanoke County, Va.

Seventh District.—Drs. William P. McGuire, of Winchester, Va.; J. H. Neff, of Harirsonburg; Hugh T. Nelson, of Charlottesville.

Eighth District.—Drs. C. C. Conway, of Rapid Ann Station; Bedford Brown, of Alexandria; and Alexander Harris, of Jeffersonton.

Ninth District.—Drs. S. W. Dickinson, of Marion, Smyth County; Robert J. Preston, of Abingdon; and R. D. Huffard, of Chatham Hill.

Tenth District.—Drs. Henry M. Pattison, of Monterey; Z. C. Walker, of Gishe's Mill; and —— Merriwether.

A Queer Siberian Disease.—The person affected seems compelled to imitate anything he hears or sees, and an interesting account is given of a steward who was reduced to a state of perfect misery by his inability to avoid imitating everything he heard and saw. One day the captain of the steamer, running up to him, suddenly clapping his hands at the same time, accidently slipped and fell hard on the deck. Without having been touched the steward instantly clapped his hands and shouted; then, in helpless imitation, he, too, fell as hard, and almost precisely in the same manner and position as the captain. This disease has been met with in Java, where it is known as "Lata." In the case of a female servant who had the same irresistsble tendency to imitate her mistress, the latter, one day at desert, wishing to exhibit this peculiarity, and catching the woman's eye, suddenly reached across the table, and seizing a large French plum, made pretense to swallow it whole. The woman rushed at the dish and put a plum in her mouth, and after severe choking and semi-asphyxia, succeeded in swallowing it; but her mistress never tried the experiment again.—*London Medical Record.*

A New Test for Water.—A pharmacist in England recently described a test for minerals in water by the use of logwood, as follows: Mix a half drachm of pulverized logwood with six ounces of alcohol and allow to stand a few days, shaking daily. Filter to a clear solution. To test water,

take a goblet full and add two or three drops of tincture of logwood to the water. If no change is noticed add two or three drops more. Continue adding like quantities, each time stirring to insure complete admixture, until the water becomes colored. If the water is pure, it will acquire a yellow tint, the same as the tincture. If it is ordinary well-water containing carbonate of lime, it will assume a rose-red tint. If lead, or other metal, be present, a blue-tint or blue precipitate will appear. The depth of the color is a coarse measure of the mineral present.—*The Sanitary News.*

The American Dermatological Association has elected the following officers for the ensuing year:

President.—Dr. W. A. Hardaway, of St. Louis.

Vice-Presidents.—Drs. J. C. Graham, of Toronto, and A. Van Harlingen, of Philadelphia.

Treasurer.—Dr. G. H. Rohé, of Baltimore.

Secretary.—Dr. W. T. Alexander, of New York.

Mr. Jonathan Hutchinson, of London, England, was elected an *honorary member.*

The following were chosen to *active membership.*

Dr. Geo. H. Tilden, of Boston; Dr. R. B. Morison, of Baltimore; Dr. F. C. Curtis, of Albany; and Dr. L. N. Denslow, of Minneapolis.

The Association adjourned to meet again on the last Wednesday in August, 1885, at the Indian Harbor Hotel, Greenwich, Connecticut.

Incomes of English Physicians.—*Gaillard's Medical Journal* says that of English doctors, Radcliffe made over $35,000 a year in the height of his fame; Mead, $25,000; Baillie, $45,000; Sir H. Halford, $55,000; and Sir B. Brodie, $85,000 in the year but one before his retirement, the largest income known. Radcliffe once received $8,000 as special fee for visiting Lord Albemarle at Namur; Granville $5,000 and his traveling expenses for a visit to St. Petersburg; and recently Sir W. Gull $5,000 each for two visits to Pau, and $7,500 for traveling to Perthsire and remaining a week with a patient. But the fee of fees was that received by Dr. Dinesdale in 1768, for inoculating the Empress Catherine and her son at St. Petersburg, viz., $60,000 paid down, a pension of $2,500 for life, and the diginity of a baron.

Absorption Through the Skin.—Günther has made experiments, with positive results, on the absorption of aqueous, ethereal, and alcoholic solutions through the human skin, skillfully contrived to guard against fallacies. The leg and foot were inclosed in a box, and completely isolated by close-fitting caoutchouc. When a one-per-cent. ethereal solution of pilocarpin was applied in the form of spray, the characteristic effect of the drug was obtained. Applied in the same way, apomorphia produced nausea and feeling of indisposition, although not positive retching.—*Medical Times.*

To Stimulate Fraternity, the Philadelphia *Medical World* suggests that the Northern delegates to the next meeting of the American Medical Association rendezvous at Louisville or St. Louis and charter a steamer for the trip both ways, and that the passengers use the steamer as a hotel while at New Orleans. While for some this mode of travel would consume too much time, those who can adopt this plan can be assured of an enjoyable trip.—*Louisville Med. News.*

Medical Items.

The Hospital of Jesus, in the city of Mexico, is said to have been founded and endowed by the conqueror Cortez. The government has recently confiscated the property, on the plea that the terms of the founder's will had not been complied with.=The most unique medical journal at present published is probably *Le Journal Médical Quotidien.* It is published daily in Paris. All the matter is written out in excellent script and this is then lithographed. The journal is therefore autographic.=Dr. J. Berrien Lindsey has been elected Secretary and executive officer of the Tennessee State Board of Health, in place of Dr. C. C. Fite, resigned.=At the annual meeting of the State Board of Health, of West Virginia, held recently in Wheeling, the Board was reorganized by the election of Dr. T. A. Harris, of Parkersburg, as President, and Dr. Jas. A. Reeves as Secretary.=Since the reduction of the tariff on quinine, the price of this drug has gradually tended downwards, until it has sold as low as $1.00 per ounce.

—Dr. R. A. Lewis, of Richmond, Va., has taken charge of the department of "Abstracts and Gleanings" of the Southern Clinic.—Dr. Julius Wise, of St. Louis, Mo., will shortly issue an encyclopædia of medical wit, humor, etc. He invites contributions from all quarters, and promises to give credit to all contributors.—The Academy of Medicine has lost a legacy of $5000 by its action last autumn in rescinding the Flint resolutions requiring the committee on admissions to recommend for membership only such candidates as supported the National Code of Ethics, which the Constitution distinctly declares to be the Code of the Academy. The late Corresponding Secretary, Dr. John G. Adams, left the Academy $5000 in his will; but after the action referred to added a codicil revoking the legacy and devoting the amount to various charities. Among the bequests in the will is the endowment of a free bed in the Presbyterian Hospital.—*Boston Med. and Surg. Jour.*—The friends and admirers of the well-known pathologist, Dr. H. D. Schmidt, of New Orleans, have organized a movement to present a testimonial portrait of him to Charity Hospital, New Orleans.—Denver, Colorado, has had an accession of twenty new doctors during the past three months. The ratio now is one doctor to every two hundred and fifty inhabitants. Considering the reputed healthfulness of this city, these doctors must, evidently, find employment in mining operations.—At the International Congress of Hygiene a few days ago, the report was read of the Commission appointed at the last International Congress to adjudge a prize of 80*l.* to the author of the best essay on diseases of the eye, offered by the British Society for the Prevention of Blindness. Four German, one English and two French essays had been sent to compete for the prize, which was adjudged to one of the German works. The first prize was awarded to Dr. Ernest Fuchs, Professor at the University of Liège. A prize of 40*l.* from the French Society for the Prevention of Blindness was adjudged to the second best essay, also written in German, and the English essay came third on the list.—*Med. Times and Gazette.*

CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT U. S. ARMY, from Sept. 16, 1884, to Sept. 22, 1884:

Caldwell, D. G., Major and Surgeon, granted leave of absence for 1 month and 20 days, to commence about October 15, 1884.

Middleton, Passmore, Major and Surgeon, having reported from sick leave of absence, assigned to duty at Fort Leavenworth, Kansas.

Cronkhite, Henry M., Captain and Assistant Surgeon, from Department of the Platte to Department of the Missouri.

Taylor, Arthur W., First Lieutenant and Assistant Surgeon, from Department of the Missouri to Department of the Platte.

White, Robert H., Captain and Assistant Surgeon, ordered for duty as Post Surgeon, Fort Gaston, Cal.

Wilson, Wm. J. Captain and Assistant Surgeon, from Department of Dakota to Department of the East.

Gardiner, J. de B. W., Captain and Assistant Surgeon, from the Department of Arizona to Department of the East.

Corbusier, Wm. H., Captain and Surgeon, from Department of the East to Department of Arizona.

La Garde, L. A., Captain and Assistant Surgeon, from Department of Missouri to Department of Dakota.

Barrows, C. C., First Lieutenant and Assistant Surgeon, granted leave of absence with permission to apply to the proper authority for an extension of one month.

LIST OF OFFICIAL CHANGES IN THE MEDICAL CORPS OF THE U. S. NAVY for the week ending Sept. 20, 1884:

Past Assistant Surgeon G. E. H. Harmon, September 16, from Navy Yard, Norfolk, to Naval Academy.

Past Assistant Surgeon W. A. McClurg, September 16, from Naval Academy to Naval Hospital, Philadelphia, Pa.

Past Assistant Surgeon Philip Leach, September 16, from Hospital, Chelsea, Mass., to the Palos.

Surgeon J. W. Coles, September 16, as member and Recorder of Naval Examining Board, and to Hospital, Philadelphia.

Past Assistant Surgeon E. Z. Derr, Sept. 16, to Navy Yard, New York.

Surgeon B. S. Makie, September 16, from Training Ship Jamestown, to Member and Recorder Naval Examining Board.

Medical Inspector D. Kindleberger, September 18, from "Hartford," sick.

Past Assistant Surgeon S. H. Dickson, September 19, permission to leave United States.

Original Papers.

HÆMOPHILIA.

BY W. H. TAYLOR, M. D., WASHINGTON, D. C.

Hæmophilia, hemorrhagic diathesis or the bleeding disease, as it is called by different writers, is a diseased condition or predisposition or defect of the system, that is hereditary, constitutional and generally congenital and continuous throughout life.

Quain's Dictionary, page 568, says men are more liable to the disease than women, in the proportion of 11 to 1, and that the disease is never well marked in women; but that in women of this disposition flooding and profuse menstruation are common; hæmaturia is rare; the disease is hereditary.

Ashhurst's Encyclopædia of International Surgery, vol. 3d, p. 254, says that the hemorrhagic diathesis is manifested in early life, and that it is rare or uncommon for it to begin in middle life, and that its congenital origin and habitual nature is characteristic, and that the disease originates in vice of structure.

Hooper's Vade Mecum, vol. 1, page 252, says that hæmophilia is twice as common in Germany as in England, and that in France and North America it is half as frequent as in England, and quoting Grandidier, says that of 308 cases recorded by him, hemorrhage took place in 152 from the nose; in 38, from the gums; in 35, from the intestines; in 17, from the respiratory tract; in 16, from the urinary; in 14, from the stomach; in 10, from the female genitalia; in 6, from the tongue; in 5, from the ear; in 4, from lips and fingers; in 4, from scalp, and in 7, from other parts.

Gross' Surgery, vol. 11, page 714, says that in individuals subject to hæmophilia there is a strong tendency to an inordinate discharge of blood from slight traumatic causes, and that the blood oozes from a wound as water oozes from a sponge, not in jets or in a stream as from an artery or from a large vein, and that the blood is neither bright nor black, but between the two, and that it partially coagulates. Gross mentions the report of Dr. John A. Sweet of a family of bleeders of eighteen individuals, seventeen of whom had died of hemorrhage at the date of the report and the eighteenth was then suffering with the disease. Another family is mentioned by Gross where the disease had run through five generations. He gives as the causes of hæmophilia, imperfect organization of the capillaries, insufficient nerve power and non-coagulability of the blood.

Tanner, in Index of Diseases, page 130, says in speaking of this disease, that hemorrhage may take place from the umbilicus two or three days after birth.

Dr. J. Wickham Legg, physician to St. Bartholomew's Hospital, London, in his Treatise on Hæmophilia, gives a very interesting history of the disease. He says the first mention he finds of hæmophilia is by an Arabic writer in the 11th or 12th century, named Albucasis, who lived in Spain. Legg draws particular attention to swelling of the large joints in hæmophilia; he considers this symptom more characteristic of the disease than hemorrhage. Other writers on the subject do not lay so much stress upon this symptom. He says the disease is hereditary, almost invariably makes its appearance in infancy, and is rare among women; in fact women never present a typical case of the disease; that it is more common in Germany than in any other country, if we are to judge by the recorded cases, as that country furnishes fifty per cent. of cases.

As to heredity, Legg makes some statements that are curious, if not fanciful. One, for instance, that the disease is not transmitted from father to son, but through the daughter to the sons or grandsons. Quoting Grandidier, he says as to local bleedings, in 256 cases: from the nose, there were 122; from the mouth, 34; from the stomach, 11; from the bowels, 33; from the urethra, 13; from the lungs, 15; from the end of fingers, 4; from a swollen place on scalp, 4; from the tongue, 4; from the ear, 3; from the eyelids, 1; from the female genital organs, 10.

As to the etiology and pathology of hæmophilia, little or nothing is positively known; that the cause is hereditary predisposition, and the pathological condition a defect or disease of the circulatory system, seems to be the most generally received opinion.

I will now recount some cases that have come under my observation, three of which I think were cases of hæmophilia. One case I think doubtful, as it occurred in an old lady, and I did not get a satisfactory history of the case. A fifth case I will men-

tion which I have set down as a case of hemorrhagic diathesis.

Case 1. A white male infant, one day old, the eighth child of its mother. All the other children were healthy, none bleeders. I saw this child July, 1873; it was bleeding from the cord. I put an additional ligature around the cord and the bleeding stopped for some hours. It commenced again to bleed at night, the hemorrhage taking place from the umbilicus around the cord from a slight scratch on the check. Solution of persulphate of iron was freely used, but did not stop the hemorrhage. On the third and fourth days the bleeding was from the umbilicus, from the nose, from the bowels and from the scratch on the cheek. Early on the fifth day the child died. The quantity of blood lost appeared very considerable. The body, after death, had a yellowish tinge and looked like wax-work. The mother of this infant enjoyed fairly good health, but in early life was subject to hemorhages from the nose, later from respiratory tract. Her flesh was easily bruised; a slight blow would produce considerable extravasation of blood. She was very sensitive to pain and fainted easily. Slight injuries that would scarcely be noticed by others would cause her, apparently, great suffering. This susceptibility to pain and extravasation of blood on slight injury was inherited from her father.

Case II. Occurred in a negro boy, aged 9 years, that I was called to see March, 1878. He was struck with a stone or piece of brick on the head which produced a scalp wound about one inch in length. I saw this boy the first time three days after the injury; I found him bleeding very freely from the wound and much exhausted. His mother said he had lost a large amount of blood, and his condition plainly indicated that such was the fact. She also said that he had always been subject to bleedings from the nose, and that he would bleed alarmingly upon being slightly wounded. I stopped the hemorrhage by pressure, but it returned again during the night, and continued, more or less, for five days, making eight days from the date of injury, and then it ceased, and the boy slowly recovered. I was called to see this boy again February, 1879, nearly a year after my first attendance. This time the hemorrhage was from a slight wound on the face, and I had the same difficulty in stopping the bleeding as on the first occasion, but it did not continue so many days, and the loss of blood was not so great, consequently he recovered more rapidly. Just about one year from this date I was called to this boy for the third time. He had received a wound over the left eye, I think it was, which I was told had bleed alarmingly. He was still bleeding freely when I got to him, but as another physician had been called in and had bandaged the wound, and was expected to return, I left and did not hear anything more of the case.

Case III. Was quite an elderly lady. I was called January, 1878, at night. The hemorrhage was from the nose, and had been going on for a week before I was called in. It was very slight when I saw her, and watery and very light-colored. After the application of cold for a short time the hemorrhage ceased, in fact the patient looked as if she had no more blood to lose. Her skin had the yellowish waxy appearance noticed in my first case. She did not recover from the loss of blood, but lingered for six weeks, her mind becoming impaired and her digestion and appetite bad. Food passed from her undigested. Death took place from inanition. Iron and quinine and cod liver oil and brandy and nourishing diet did not stay the fatal termination. There was no return of the hemorrhage during my attendance.

Case IV. A mulatto girl, aged 16 years, sent to me by Dr. D. R. Hagner, April, 1883, had been suffering with epistaxis several days. This, her mother informs me, had been habitual with her since infancy. Her father, in early life, had suffered in the same way. I attended this girl for over two months before she was sufficiently recovered to leave her room, Dr. Hagner frequently seeing her with me. She became much reduced from loss of blood; her appetite was morbid, she craved indigestible articles of diet, and begged to have clay to eat. Legg mentions this disposition as not uncommon in these patients during convalescence.

It would not be interesting to give a detailed account of the treatment throughout this case.

At the suggestion of Dr. Hagner, I applied solution of persulph. of iron to nostrils with camel hair brush. This never failed to arrest the hemorrhage for the time, but it would return in from 12 to 48 hours.

Tincture of chlorid. iron, quinine, tannin and acetate of lead and opium, did not seem to me to be of much benefit. Indeed, I thought quinine increased the tendency to bleed. ("For dental hemorrhage, particularly, Verneuil advises quinine internally, one or two grammes daily." Reynolds' System, p. 905.) Gallic acid, in ten grain doses, given in capsule with one grain of opium every four or six hours, alternating with fluid extract of ergot in half drachm doses, controlled the hemorrhage more effectually than anything else. This patient is now, September, 1884, in good health. She has had several slight attacks of hemorrhage since the attack a year and five months ago. She is regular in her monthly periods. During her illness her menses were suppressed.

Hartshorne in the article hæmophilia, Reynolds' System of medicine, says it is generally stated that women subjects of hæmophilia are not predisposed to hemorrhage in labor or at the menstrual period, but that he cannot think this statement correct, two German pathologists, Borner and Kehrer, having brought to light facts showing that dangerous hemorrhages do occur in women of such families. There are so many different statements in regard to this matter that I am inclined to believe hæmophilic women are not more liable to flooding than others, unless an abortion or labor occurs at a time when spontaneous hemorrhage is about to take place. Quite likely the same will hold good in regard to wounds, surgical or otherwise; that is if not inflicted at a hemorrhagic period they will not be attended with unusual hemorrhage.

There is a peculiarity in hæmophilia noticed by Wickham Legg and other writers on the subject, that is a tendency to bleed at night. This was the case with my patients.

I am doubtful if I should not add to the above a fifth case, which, if a case of hæmophilia, would be classed as belonging to the lowest grade of the disease. This case was a little girl, 9 years old, brought to me on account of hemorrhagic spots on her arms and legs. She had suffered attacks of this kind several times before I saw her. I could not get any satisfactory family history in this case. I gave this child iron and quinine, as I did in the cases of hemorrhage, but I did not observe any benefit from its administration in either of the cases. I gave cod liver oil to this little girl, and to the second, third and fourth cases of hemorrhage after the bleeding had stopped and I thought it was of great benefit to them.

Selected Paper.

THE NATURAL PRODUCTION OF MALARIA AND THE MEANS OF MAKING MALARIAL COUNTRIES HEALTHIER.[1]

BY PROFESSOR TOMMASI CRUDELI.

Gentlemen—Before entering upon my subject, I must crave the indulgence of those of my colleagues whose language I have borrowed for any Italicisms that I may use, as well as for the foreign accent which must strike their ears more or less disagreeably. Desiring to respond as well as lay in my power to the invitation with which I have been honored to discuss the hygienic questions relating to malaria, I have chosen the French language as being the one in which, apart from my mother tongue, I could express myself with the greatest ease and precision.

I shall be pardoned also, I hope, for having employed the terms "malaria" and "malarial districts" in place of the more commonly used expressions "paludal miasm" (*miasme paludéen*) and "marshy regions" (*contrées marécageuses*). The substitution is not a happy one from a literary point of view, but I have made it deliberately and for the following reason: The idea that intermittent and pernicious fevers are engendered by putrid emanations from swamps and marshes is one of those semi-scientific assumptions which have contributed most to lead astray the investigations of scientists and the work of public administrations. This idea, so widespread and so well established by the traditions of the school, is radically false. The specific ferment which engenders those fevers by its accumulation in the atmosphere which we breathe is not exclusively of paludal origin, and still less is it a product of putrefaction. Indeed, in every region of the globe between the two arctic circles there are swamps and marshes, steeping-tanks of

1. An Address delivered at the Eighth Session of the International Medical Congress, Copenhagen, August 12, 1884. Reprinted from *Medical Record*, New York.

hemp and flax, large deltas where salt and fresh waters mix, yet there is no malaria there although putrid decomposition is on every side. On the other hand, in the same parts of the globe there are places which are not and never were marshy, and in which there is not the least trace of putrefaction, but which, nevertheless, produce malaria in abundance. I reject, therefore, wholly the paludal assumption, and in order to express this view in the title of my paper, have been forced to employ terms which to my hearers may sound like Italicisms.

The Italians generally have not this paludal notion, for experience taught them long ago that malaria is produced nearly everywhere; in marshy districts as well as well as in those which might almost be called arid; in a volcanic soil as well as in the deposits of the miocene and pliocene periods and the ancient and modern alluvia; in a soil rich in organic matters as well as in one containing almost none; in the plains as well as on the hills or mountains. The word malaria (bad air), which it is the sad privilege of Italy to have lent to all languages to express the cause of intermittent and pernicious fevers, represents then, among the majority of our rural populations, the idea of an agent which may infect any sort of country whatever may be its hydraulic and topographical conditions and whatever may be its geological formation. This word, therefore, is the one best suited to designate this specific ferment in question, and I have on this account employed it and its adjectival derivatives in order not to resuscitate the idea of the exclusively paludal origin of the morbific agent.

I shall not tarry long to speak of the nature of this ferment, for the studies bearing upon that point, although far advanced, are not yet completed. I may remark, however, that the idea that the ferment is formed of living organisms is a very old one, and has not arisen suddenly because of the modern theories of the parasitic nature of disease. From the time of Varrar (who believed that malaria was made up of invisible mites suspended in the atmosphere) to our own day this theory has been several times advanced by hygienists. Independently of the general considerations which led Rasori, and later Henle, to formulate the doctrine of the *contagium vivum* of infection (long before the progress of microscopical science had revealed the existence of living ferments), there were peculiar circumstances as regards malaria which should have impelled minds to look in that direction, even in times long past.

Some of these circumstances are of a nature to strike every serious observer, and deserve a few moments' attention. How could one maintain, for example, that this ferment is a product of chemical reactions taking place in the ground, when it is seen to remain constantly the same whatever may be the composition of the soil from which it emanates? As long as the paludal theory held sway the chemical interpreation of this identity of the product in every latitude was easy. Rica does not hesitate to admit that when a swampy tract is heated by the sun's rays to the necessary point for the putrid decomposition of the organic matters contained in it, the "chemical ferment," or rather the "mephitic gases," to which is attributed the morbific action, are developed, whatever may be the distance from the equator at which this marshy region lies. But since it has been ascertained that malaria is produced in soils of the most varied chemical composition, *the persistent intensity of this product* has become chemically inexplicable; while it is however readily conceivable, if one admits that malaria is an organized ferment which easily finds the necessary conditions for its life and multiplication in the most varied soils, as is the case with millions of other organisms vastly superior to the rudimentary vegetables which constitute the living ferments.

The same thing may be said of *the progressive intensity of the morbific production in abandoned malarious districts.* This fact has been historically proven in several parts of the earth, and especially in Italy. A large number of Grecian, Etruscan, and Latin cities, even Rome itself, sprang up in malarious territories and attained a high state of prosperity. First among the reasons for this success must be placed the works undertaken with a view of rendering these places more salubrious, which lessened the evil production, *but almost never extinguished it completely.* After the abandonment of these localities, the production of malaria recommenced in a degree which went on increasing from

age to age, and which has rendered some of these places actually uninhabitable. This was seen, in the time of the Ancient Romans, in Etruria, when it was conquered and laid waste, and in several parts of Magna Græcia and of Sicily. From the fall of Rome even to the present day, this phenomenon has been manifested in a very evident manner in the Roman Campagna, in certain parts of which, even up to the Renaissance, it was possible to maintain pleasure houses, but which are now uninhabitable during the hot season. In many cases the physical conditions of the soil have undergone no appreciable change during centuries, so that it is impossible to attribute so enormous an augmentation of malaria to an increase in its annual production, itself increased by a progressive alteration of the chemical composition of the soil. But if, on the contrary, it be admitted that malaria is caused by a living organism whose successive generations accumulate in the soil, the interpretation of this fact becomes very simple.

There are, finally, *peculiarities in the local charging of the atmosphere with malaria* which can be explained only in this manner. If the malarial miasm were composed of gaseous bodies emanating from the soil, or rather of chemical ferments formed beneath the ground and raised into the air by gases or watery vapor, the charging of the atmosphere with the specific poison ought to arrive at its maximum during the hottest part of the day, when the ground is heated the most by the sun's rays and when the evaporation of water and all chemical actions attain their maximum intensity. But this is very different from what actually occurs. The local charging of the atmosphere is always less strong during the meridian hours than at the beginning and the end of the day, that is to say, after the rising, and especially after the setting of the sun. Now it is precisely at these hours that the difference between the temperature of the lower layers of the atmosphere and that of the surface of the ground is the greatest, and that the ascending currents of air starting from the ground are the strongest. If malaria consists of solid particles contained in the soil, one may readily understand how their elevation *en masse* into the atmosphere should take especially at these two periods of the day.

All these facts, which can be easily verified if the subject of malaria be studied on the spot and without any preconceived notions, explain the tendency which has always been manifested to attribute this specific poisoning of the air to a living organism which is multiplied in the soil; and they also explain the ardor with which hygienists have applied themselves to the production of the scientific proof.

Unfortunately the investigations undertaken for this end have for a long time been fruitless, for the pre-conceived paludal theory has led investigators to occupy themselves exclusively with the inferior organisms inhabiting marshes. Among these organisms they studied especially the *hyphomycetes*, which had already acquired so great an importance in dermatology; and their entire attention was concentrated upon the aquatic algæ, without even taking the precaution to determine whether the varieties which they thought to be malarial were found in all malarious swamps, or whether they were capable of living within the human organism. It has thus happened that each observer has indicated as the cause of malaria a different variety of alga, whichever he found to be most abundant in the swampy ground that he had to examine. Thus Salisbury has indicated the *palmella gemiasma*, which is found with us in places perfectly free from malaria, while it is often wanting in malarious marshes in the centre of Italy; Balestra, a species of alga which is as yet indeterminate; Bargellini, the *palmoglœa micrococca;* Safford and Bartlett, the *hydrogastrum granulatum;* and Archer, the *chitonoblastus æruginosus*. There is not a single one of these species the parasitic nature of which has been demonstrated; and as regards the two last named varieties, it can be positively denied that they are capable of producing a general infection, for the diameter of their spores and filaments is greater than that of the capillary blood-vessels.

It was only in 1879 that Klebs and myself, after having been thoroughly freed, by a long series of preparatory studies, from the unfortunate paludal idea, undertook together some investigations in malarious districts of the most varied character, marshy and not marshy. We employed the system of fractional cultivation, making experiments on animals with the final products thus obtained. We felt ourselves

justified in recognizing the malarial ferment in the *schizomycete bacillus*. The numerous researches made subsequently by us, and by many other observers, in the soil and in the air of several malarious localities, as well as in the blood and in the organs of men and animals specifically infected, have put it henceforth almost beyond doubt that we really have to do with a schizomycete. Very recently. MM. Marchiafava and Celli have succeeded in demonstrating that the germs of this schizomycete attack directly the red blood-globules, and destroy them, causing them to undergo a series of very characteristic changes which admit of easy verification, and which render certain the existence of a malarial infection.

Several observations made recently in Rome tend to demonstrate that the schizomycete of malaria does not always assume the complete bacillary form described by Klebs and myself; but this morphological question possesses no further interest for the hygienist. For him the essential thing is to know that he has to deal with a living ferment which can flourish in soils of very varied composition, and without the presence of which neither marshes nor stagnant pools of water are capable of producing malaria.

We must not think, however, that all earth containing this ferment is capable of poisoning the superjacent atmosphere. Popular experience, certain modern scientific investigation, and the facts which one can often verify when the soil, which was malarious in ancient times and which has since ceased to be so, is turned up to a great depth, all agree in proving that the ground remains inoffensive as long as it is not placed in certain conditions indispensable for the multiplication of this specific ferment. Up to this point the organism lives, so to speak, in an inert state, and may remain so during centuries without losing any of its deleterious power. There is nothing in this fact that ought to surprise us, since we know that the life and the power of evolution belonging to the seeds of plants of a much higher order than these vegetable organisms constituting ferments, may remain latent for centuries, and may then revive at once when these grains are placed in the conditions suitable for their germination.

Among the conditions favorable to the multiplication of the malarial ferment contained in the soil, and to its dispersion through the superjacent atmosphere, there are three which are absolutely essential, and the concurrence of which is indispensable for the production of bad air (malaria). First, a temperature which does not fall below 20° C. (67-5° F.); next a very moderate degree of permanent humidity of the soil; and finally, the direct action of the oxygen of the air upon the strata of earth which contain the ferment. If a single one of these three conditions be wanting, the development of malaria becomes impossible. This is a point of prime importance in the natural history of malaria, and it gives us the key to most of the methods of sanitary improvement attempted by man.

Let us see first what can be done in this direction without the labor of man. For Nature herself makes localities salubrious by *suspending* for a greater or less time the production of malaria. It is thus that winter brings about in every country a freedom from malaria which is *purely thermic*, for it is due simply and entirely to a sinking of the temperature below the required minimum. Indeed, if the temperature in winter rises above this minimum, there are often sudden outbreaks of malaria. Sometimes during very warm and dry summers the heat extracts all the humidity from the malarious soil, and thus procures for us a freedom from the disease, which is *purely hydraulic*. This may continue for a long time (as happened in the Roman Campagna during the years 1881 and 1882), but may also be completely destroyed by a single shower. Nature also sometimes renders a district healthy in a manner *purely atmospheric*, by covering a malarious soil with earth which does not contain the malarial ferment, or with a matting formed of earth and the roots of grasses growing closely together in a natural meadow.

In the attempts at purification by suspending the malarial action, which have been devised by man, the same thing has been done; that is to say, it has been sought to eliminate at least one of the three conditions essential to the development of the specific ferment contained in the infected soil. Naturally, they have not thought of bringing about a thermic purification, such as Nature produces in winter, because of

the impossibility of moderating the action of the sun; but they have tried from all time to procure hydraulic or atmospheric purifications, and sometimes to combine these together in a very happy way.

The hydraulic systems are very numerous, for the problem which is presented, namely, that of depriving the ground of its humidity during the hot season, necessitates different solutions according to the nature and the bearing of the soil. Sometimes this is done by digging open or closing ditches intended to draw away large bodies of water. At other times a system of drainage is established, by means of which the water is drawn out of the earth, and its level is depressed, so that the upper malarial strata, exposed to the direct action of the air, are deprived of moisture during the hot season. This system of drainage is not a modern invention; the Italian monks understood it as well as, and even better than we do. In deep and loose soils they used sometimes, just as we do now, porous clay pipes; but when the subsoil was formed of compact and nearly impermeable matters, they employed a system of drainage, the extent and grandeur of which astonishes us. It is that of drainage by cavities, applied by the Etruscans, Latins, and Volsci to all the Roman hills formed of volcanic tufa, the tradition of which I have found still preserved in some countries of the Abruzzi.

We may sometimes establish a double drainage, from below and from above; that is to say, drain the subsoil, and at the same time increase the evaporation of water from the surface of the ground. It is well known that clearing off the forests of malarious countries has often proved an excellent means of making lands salubrious which were before too damp; for, by removing every obstacle to the direct action of the sun's rays upon the ground, we cause an increase of evaporation from its surface, and may thus be enabled to exhaust the superficial strata completely of their water during the hot season. In very moist lands which lend themselves readily to deep drainage, the combination of the latter with a clearing of the surface has, in almost every quarter of the globe, rendered possible a very widespread and sometimes quite lasting freedom from malaria. But, although a nearly universal experience proclaims this fact, there is a school which, following in the footsteps of Lancisi, maintains the contrary opinion, that it is necessary to preserve the forests in malarious districts, and even to increase their extent, since the trees filter the infected atmosphere and arrest the malaria in their foliage. This strange theory was formulated by Lancisi in 1714, on the occasion of the proposed clearing of a forest belonging to the Caetani family, and lying between the Pontine Marshes and the district of Cistema. Lancisi was completely imbued with the paludal notion, and consequently believed that the very severe malaria of Cistema was brought by the winds from the coast marshes, instead of being produced in the soil surrounding the district, which was then covered by this forest. He believed then that the forest acted as a protective rampart, and he prevented its being cut down. But towards the middle of the present century, the Caetani had the woods cleared off from the entire belt of land surrounding Cistema. Twenty years later I was able to show that Cistema had gained greatly in salubrity. I published my observation in 1879, and, naturally, was taken to task rather sharply in the name of the sacred tradition. Happily these recriminations led our Minister of Agriculture to have the question studied by a special commission. This commission, after a conscientious examination, extending over three years, of all the malarious localities in the province of Rome, has just published its report,[2] the conclusions of which are entirely in accord with the facts of universal experience. They were not able to verify a single fact in support of Lancisi's theory, while they found many of the same nature as that of Cistema, and which have resulted in overturning the theory entirely.

It has also been thought possible to practise drainage from above by means of plantations of certain trees which would draw considerable moisture from the earth, a method which might really be serviceable in some malarial districts. But in accordance with the idea that malaria is a product of paludal decomposition, the trees selected have almost always been the *eucalyptus*. It has been maintained that

[2] Della influenza dei boshi sulla malaria dominante nella regiona marittima della provincia di Roma. Annali di Agricoltura, No. 77, 1884. Roma: Eredi Botta.

trees of so rapid a growth ought to drain the soil very actively, and also that the aroma of their foliage ought to destroy the miasmatic emanations. I have hitherto been unable to verify a single instance of the destruction of malaria by eucalyptus plantations, but I do not consider myself justified in denying the facts which have been stated by others. There is nothing to oppose the admission that these plantations, when properly made, may sometimes have been of great utility. I maintain frankly, however, that they have not always been so, and that it is necessary to guard against the exaggerations into which some have allowed themselves to fall in recent times. Such exaggerations might have been avoided if, instead of talking about these plantations on the basis of a theoretical assumption, the results only had been studied in places where the eucalyptus abounds. It would then have been known that even in the Southern hemisphere, the original home of the eucalyptus, there are eucalyptus forests which are very malarious. This fact has been demonstrated by Mr. Liversige, Professor in the University of Sydney, Australia. Among us, also, although everybody was convinced by the statements of the press that the locality of the Tre Fontane, near Rome, had been freed from malaria by means of the eucalyptus, people were disagreeably surprised by an outbreak of very grave fever occurring throughout the whole of this colony in 1882, a year in which all the rest of the Roman Campagna enjoyed an exceptional salubrity. If, alongside of these hygienic uncertainties, we place the agricultural uncertainties, we must conclude that it is necessaryto contend strongly against this fanatical prejudice in favor of the eucalyptus-tree. These plants are, in fact, very capricious in their growth. In full vegetation, during the winter in our climate, they are often killed instantly by a sharp winter frost, by damp cold, by the frosts of spring, or by other causes which the botanists have not yet been able to determine. At other times, if the winters are very mild, these plants grow too rapidly in height, and then are broken short off by moderately strong winds. It should further be mentioned that these plantations are sometimes very expensive. In fact, if the earth contains too much water,it must be drained under penalty of seeing the roots of the eucalyptus rot. Then, again, if the subsoil is compact, it is necessary to dig deep trenches in order to give room to the long roots of these trees, and often indeed these trenches must also be drained, as is done for olive-trees. The conclusion evidently is that it is better to confine ourselves to hydraulic methods of promoting the healthfulness of a locality, the immediate effects of which are less uncertain. And then, when the local conditions are such as to make it desirable to try the effects of plants possessed of strongly absorbing powers, it is better to choose them from among the flora of our own hemisphere. This is more sure, and will cost less.

Simple hydraulic methods of purification, even the most perfect, do not, however, produce permanent hygienic effects, since the moisture necessary for the multiplication of the malaria in the soil is so slight that these effects may be compromised by anything whatever, that is capable of restoring a moderate degree of humidity to the ground during the hot season. It has often been thought that a suspension of malarial production would be better assured by suppressing at the same time the humidity of the soil and the direct action of the oxygen of the air upon the superficial strata of earth which contain the ferment. This has been successfully accomplished by the system of overlaying (*comblées*). This consists in covering the infected soil by thick layers of uninfected earth, carried there either by the muddy waters of rivers, or by the hand of man. At the same time the steady drainage of surface and underground water is provided for. Last year, I advised our Minister of War to undertake in another form an hydraulico-atmospheric purification of the district of the Janiculum surrounding the Salviati palace on the via della Longara, by draining the soil carefully, and covering with a layer of very close turf all the parts of the surface which could not be macademized. It would seem as if this system had been rather successful, since there has not been this year a single case of fever in the *personnel* of the new military college, established in the Salviati palace; while in the Corsimi palace, which is situated on the same side of the via della Longara, but which looks out upon that part of the Janiculum which is still uncovered, there have been some fatal cases of fever.

(*To be continued.*)

Society Reports.

PROCEEDINGS OF THE MEDICAL SOCIETY, DISTRICT OF COLUMBIA.

SEPTEMBER, 17, 1884.

(Specially reported for Md. Med. Journal.)

The Society met with the President, Dr. Garnett, in the Chair, Dr. McArdle, Secretary.

Dr. W. H. Taylor read a paper on Hæmophilia. See page 40.

In the discussion which followed

Dr. Schaeffer said in diagnosing cases of this character, we should not fail to take into consideration the scorbutic tendency found in some individuals. He then recounted the history of a man suffering from paralysis agitans whose hands and arms were strongly marked by hemorrhagic discolorations. Inquiry developed the fact that the man was living almost entirely on salt meats, and rarely partook of vegetables. Antiscorbutic remedies will always prove beneficial in such cases.

Dr. Taylor replied that hæmophilia was an hereditary disease, for which no one had as yet found a remedy. It is totally independent of diet and occurs in the earliest stages of life. Legge makes a distinction between hæmophilia and hemorrhagic diathesis. Dr. Taylor's last case should, perhaps, be classed under the latter head, but some points in it lead him to class it under the third degree of hæmophilia. Women, as a rule, when affected, present the second and third degrees of that disease.

Dr. Garnett thought there was some confusion of terms. He had not looked up the authorities, but had some experience in the matter. He considered hæmophilia a disease of the blood corpuscles. The hemorrhagic diathesis was not inconsistent with otherwise good health. He then related a case which had occurred in his own practice before the war. A young lady patient had a tooth extracted which caused a hemorrhage so profuse and protracted that it would not yield to the ordinary styptics, and the actual cautery was tried in vain. He was compelled to use constant pressure by means of an old-fashioned pair of sugar tongs, until a silver plate could be fashioned. This was the third case among the females of that family, the other two having died of hemorrhage, or its effects. No case had been noted amongst the males. Hæmophilia was not hereditary, but was a *bona fide* pathological condition of the red blood corpuscles. He believed such to have been the case with the daughter of a well known banker of this city. She had resided so long in the West Indies that her blood had become in a hæmophilic condition.

Dr. Taylor contended that the last speaker had reversed the opinions of recognized authorities.

Dr. Schaeffer thought it would be admitted that any one might bleed to death from a slight wound unless nature repaired the trouble by coagulation, or if the reflex nervous system were in fault. The blood must be deteriorated when it exudes from the skin and mucous surfaces.

Dr. Taylor agreed that the blood became watery after hemorrhage had lasted for some time.

Dr. W. W. Johnston asked if this was not merely a disease of mal-nutrition. We cannot have bleeding from vessels unless there is a solution of continuity. Disease affects the walls of the blood-vessels and rupture occurs. The blood, at first healthy, afterwards naturally becomes deprived of its red blood corpulses. He thought hæmophilia and the hemorrhagic diathesis should be considered the same disease, one being hereditary, the other acquired. The disease was clearly due to altered nutrition. He then related one case of a child and another of a colored man, as illustrating the two phases of the disease. He called to mind also the case of a man in splendid health, without any such history in his family, who, in two weeks from overwork, died of hemorhage.

Dr. Garnett thought there was a difference. Two persons in different families may suffer from hemorrhage at the same time. In one it will be stopped by the use of ordinary styptics. In the other all means may be used in vain. We are thus obliged to acknowledge a difference. What it was he was not prepared to say positively. It might be due to trophic influences—to the vaso-motor nerves. He, of course, recognized the fact that after continuous bleeding the blood became impoverished.

Dr. Shaeffer believed that Dr. Johnston did not mean exactly that there could be no hemorrhage without a solution of the

continuity of the vascular walls. It is admitted by all that the blood corpuscles can migrate and hemorrhage in bronchitis is thus by some explained.

Dr. C. E. Hagner thought there was no difference between hæmophilia and the hemorrhagic diathesis. It might sometimes, however, prove a nicety of diagnosis to distinguish between purpurea hemorrhagica, leucocythæmia, hæmophilia, and scurvy. It may be that a given patient may have hemorrhagic spots which will disappear, to be followed by hemorrhage from the nose, which in its turn will stop and be succeeded by enlargement of the glands of the neck, again, hemorrhage from the nose take place, and finally the individual die from leucocythemia. Dr. Johnston will recall such a case where all three of these diseases were developed.

Dr. Lovejoy said the fact that we have so few cases reported would seem to indicate that this disease is rare. In his own practice he recalled one instance—that of a new-born infant. The baby was born before his arrival, and the nurse had cut the cord unusually long and tied it tightly. The doctor removed a small portion of the stump and retied it, but in a few hours bleeding took place from the umbilicus, the blood seeming to ooze from the unbroken membrane. The child died, despite all styptics. It was a fairly well nourished child, and after its death presented the appearance of having been moulded from the choicest wax. The mother came here from Philadelphia, where she had been under the care of Dr. Keating, who had prescribed the internal use of iron, which had been continued whilst here. She suffered from some œdema of the feet. She had no history of hemorrhage, however, and no such condition was traceable in either family.

With regard to the causes—all agree that they are obscure. The most reasonable opinion is that of thinness of the vascular walls. Some cases have been observed where deficiency in the development of the heart-walls has been found. It has been observed that in persons suffering from this disease the blood vessels show most clearly under the surface of the skin. With regard to the fact that so few women are affected, it must be borne in mind that the disease generally wears out in course of time. Children outgrow the diathesis. He might add that he had read of a woman dying on her wedding night on account of hemorrhage from rupture of the hymen.

Dr. D. R. Hagner had seen few cases of hereditary hemorrhagic diathesis. He had though seen cases of death from bleeding from the cord, epistaxis, etc.

In the family mentioned by Dr. Taylor no one else was so afflicted. He desired to allude to the method in vogue of plugging the nostrils. Although he had used Belocq's canula, he found it better to saturate a piece of lint with persulphate of iron and twist it far back into the nose. He had removed a plug which failed to stop the hemorrhage and succeeded with the lint. In a case where a tooth had been extracted he tried for three days to stop the bleeding, and finally succeeded with iron, cork, pressure, and bandage. He could only call to mind three cases of severe hemorrhage in adults. As for the hemorrhagic diathesis he had seen very little of it.

Dr. Lovejoy did not think that hæmophilia was necessarily hereditary.

Dr. Garnett had often plugged the nostrils for epistaxis—twenty times at least. He had now in mind two cases in South Washington. He used an ordinary bougie for the purpose of plugging the posterior nares. He did not think Dr. Hagner's method would always prove successful, especially where styptics had been previously tried, and the nasal cavity more or less filled with coagula.

Dr. Toner wished to mention a typical case of the congenital form. The patient was a boy, the second child of its father's second wife, a tall, spare blonde. A month after birth it showed a tendency to bleed. Hemorrhagic spots would occur on its limbs during the night. The anxious parents paid every attention to bedding, diet, clothing, etc. The hemorrhagic periods were not fixed, but would occur two or three times a year. The child would not become sunburnt like its brothers and sisters. He grew tall, but gained little strength, and finally died from the disease at the age of thirteen.

Dr. D. R. Hagner thought the catheter would be a source of irritation and start the bleeding afresh. He had, of course, often heard of its use.

Dr. Garnett said *experientia docet.*

Dr. Palmer had suffered from hemorrhage of the nose for three days, and it

was finally stopped by an injection of persulphate of iron.

Dr. Toner had used the method spoken of by Dr. Garnett in plugging the nose of the largest man in Washington.

On motion, the discussion was closed by *Dr. Taylor*, who said he questioned the propriety of plugging the nostrils in this case, as there was tendency to hemorrhage from the lungs in that particular case.

Dr. Toner proposed the following resolutions, which were unanimously adopted.

Resolved, That the Medical Society of the District of Columbia has learned with sincere regret of the severe injury received by one of our oldest and most esteemed members, Dr. Joseph Borrows, by an accidental fall and his present critical condition.

Resolved, That a copy of these resolutions be spread upon our minutes and communicated by the Secretary to Mrs. Borrows.

The Society then adjourned.

HALL OF BALTIMORE MEDICAL ASSOCIATION,

No. 122 West Fayette Street,
Baltimore, *June 9th*, 1884.

The Association was called to order at 8.30 P. M., the President, Dr. E. G. Waters, in the chair.

Dr. Silas Baldwin, 152 Townsend St., corner Myrtle Avenue, was proposed for membership by Dr. D. J. Reinhart.

Case of Intussusception.—*Dr. J. E. Gibbons* reported the following case: Last Monday, one week ago, he was called to see a lady, æt. 66, suffering with vomiting and abdominal pains. The attack was supposed to be one of ordinary colic, and was ascribed to some green peas which she had eaten the day before. Squibb's Compound Mixture was given, with some relief. Further treatment consisted of calomel, one-sixth grain doses, every hour, followed by Seltzer aperient; then two ten grain doses of calomel; then ℥j castor oil; then an Enema; the last was said to have acted freely, but investigation showed that nothing had passed except the enema. The pain continued all day Tuesday, and that evening she was very much prostrated, with cold extremities, etc. Intussusception was then suspected. She sank and died Wednesday morning. The pain was confined to one spot, and there was no stercoraceous vomiting. She had no rupture. The death certificate assigned intussusception as the cause of death. This patient was a very hysterical person. Three months before she had taken up a notion that she was dying, and when Dr. G. arrived this seemed to be the case, and for ten days it was thought to be so. In her last illness the vomiting was very obstinate. She ate nothing for the last two days, but was supported by stimulants.

Femoral Hernia—Operation—Death.—*Dr. Rohé* reported the following case: He was sent for late at night to see a woman, 28 or 29 years old. She had extreme pain in the region of the umbilicus, which was attributed to something she had eaten just before. A large injection of morphia was made hypodermatically, but gave only partial relief. An enema was directed in the morning with a cataplasm. In some hours she was again seen, but was still in pain. A close examination was then made, when a small femoral hernia, about the size of the end of the thumb was discovered. Manipulation seemed to relieve this entirely except a little bit which seemed to be a small gland. A surgeon was called who said there was no hernia. Operation being insisted on, however, was performed. No gut was found but a little omentum, which was released and returned to the abdomen. The wound was closed. The symptoms were relieved, and the patient improved, but notwithstanding this, she died on the following day in collapse. Dr. Rohé believed that if he had examined earlier and if operation had then been done the result might have been different. Dr. Rohé knew of several cases in which he believed death to have been due to delay in operating.

Case of Twins—One Child Being in a Putrid Condition.—*Dr. Neff* reported the following case: A woman at term gave birth to twins, one of which was living and healthy, the other in a putrid condition. The placenta was adherent; one part of it seemed healthy, the rest was in a putrid condition. There was only one placenta, but the sacs were distinct. The patient had severe pains for one week before her confinement. There was an immense quantity of water. Ergot was given.

Case of Triplets.—*Dr. Cuddy* reported a case of triplets. The mother was only eight months advanced. Two of the children were living and large, the third would mash in the hand, being almost entirely putrid. One of the children lived several weeks, the other was living and well after eleven months. There was but one placenta and three cords. This patient has been confined once before, and craniotomy had then been performed.

Confinement in a Primipara Ten Years Married.—*Dr. Dickson* reported the following case: A lady, æt. 34, has been ten years married, and has just had her first child. During this time she has menstruated regularly. Her labor was perfectly natural, lasting but seven hours. Dr. D. thought she must have conceived just previous to or at the beginning of a menstrual period, as she had calculated the time very exactly, and did not expect to be confined until the end of this month.

Dr. Scarff said that his practice was to calculate 280 days from the beginning of the last menstruation. In 36 cases thus computed the expectation has not varied two days from the actual result.

Dr. Smith said that until we are able to tell the exact time when the ovum and spermatozoa come in contact, we can't come within a week of the correct time with certainty.

Dr. Roseberry asked if the menses would take place if the woman conceived immediately before a period.

Dr. Kemp referred to a case where a lady was paralyzed three months after her marriage. For four years she and her husband have observed closely the rule to abstain from intercourse for 12 days after her menstrual periods, but she became pregnant nevertheless, and died five weeks after confinement, of exhaustion. The child is well. She had hemiplegia of the left side. She was 31 at the time of her death.

Dr. Dickson knew of a gentleman who for thirteen years had observed the twelve-day rule, and had had no child during that time, although both himself and wife were perfectly well. His wife had had three children previously and had been broken down thereby.

Dr. Friedenwald said this idea was a fallacy, as shown by the customs prevailing among Israelites.

Dr. Scarff knew of cases in which conception took place before menstruation.

Dr. Kemp said very great variations in the menses indicate pregnancy with almost certainty.

Dr. Scarff referred to two cases where there was profuse leucorrhœa at the menstrual periods, and said he looked upon that as almost a certain symptom of pregnancy.

Dr. Smith said we can't say positively that conception will not take place under any rule.

Opium Idiosyncracy.—*Dr. Scarff* reported the following case: A lady suffered with extreme pain in the back, extending around to the right iliac region. She was unable to take opium in any form. After using various anodynes without relief, the Dr. ventured to give McMunn's Elixir of Opium. He then left. Before he had reached his office, however, he was recalled and found her in spasms and frothing at the mouth. She had taken the drug from several physicians with similar results. Sulph. codeia, in gr. $\frac{1}{8}$ doses produces similar though less severe results. The condition of this patient was not that of a convulsion but a rigidity of muscles. She was on the floor during the spasms. Not five minutes elapsed after giving the opium before the husband started for the doctor.

Dr. Sellman reported a similar case in a young lady at the seashore who was thrown into spasms and unconsciousness by a dose of opium. These symptoms lasted three days. Injecting the deodor. tincture into the rectum produced no ill effects. Chloral could be taken without difficulty.

Dr. Chambers doubted whether the result was due to opium. Three days is too long a period for the spasms to last, and five minutes too short a time for physiological effects to become manifested. The enema was an unexpected way of using the remedy. He thought these cases were hysterical. He pays no attention to patients who say they can't take the agent.

Dr. Dickson disagreed with the last speaker, having seen so many cases where the pneumogastric was affected. Had seen vomiting supervene almost immediately although the patients did not know what they were taking. Yet they could take the remedy in other ways.

Dr. Smith referred to a case where water had been substituted a number of times

with the same results, showing that the patient—a lady—derived the benefit simply through a mental impression.

Dr. Sellman had tried water as a substitute without effect.

Uræmic Amaurosis.—This formed the regular subject of discussion, and elicited a paper from *Dr. Friedenwald*, the conclusions of which were as follows:

1. When amaurosis suddenly overwhelms a patient in both eyes, with no ophthalmoscopic change, uræmia should be suspected even in the absence of any other prominent uræmic symptoms.

2. Uræmic amaurosis will continue only as long as the uræmia exists, and will disappear when the function of the kidney is reestablished. When permanent injury to sight is observed it may be due to preexisting retinal changes, not at all uncommon in Bright's disease.

3. The chances for a full return of sight are somewhat impaired when the patient has been the subject of recurring attacks.

4. By exhibiting jaborandi and other means for inducing diaphoresis and by free purgation a catastrophe may be averted in the general forms of uræmia, but when it occurs in pregnancy premature labor is the only remedy which promises safety to the patient.

Dr. Jones reported a case of uræmic coma with blindness. The urine contained 40 per cent. of albumen. Recovery ensued under the use of jaborandi freely with purgatives. The blindness lasted eight to ten days, disappearing gradually.

Dr. Gibbons reported a similar case in a parturient woman where the blindness lasted four or five days. The patient recovered.

The discussion was then closed.

Dr. Kemp reported for the Executive Committee that a midsummer meeting of the Association had been arranged for the second Monday in July; also that Dr. Sternberg had been requested to bring before the Association at that meeting the results of researches he was now making into the ætiology and pathology of cholera infantum, but that he would not have them sufficiently completed for presentation then, and had, therefore, promised to make a communication on the subject at the first meeting in the fall.

The Association then adjourned.

Editorial.

Over-Pressure in Elementary Schools.—Much attention has been called during recent years to the injurious consequences of over-pressure in elementary schools, and this subject has been viewed from different standpoints by different investigators. We are informed by one set of observers that the system is all right and works no injury to school children, whilst other observers claim that physiological laws are violated which cannot fail to work disastrous consequences to them.

Quite recently this subject has been agitated in England by a report made by Dr. Crichton Browne. Dr. Browne began his investigations with the belief that the indiscriminate brain forcing which he had seen in middle and high class schools extended into the elementary schools also. The evidences of over-pressure met with in his investigations are: (1) *Detention* in school after hours, which the teacher assured him was necessary, in order that the requirements of the inspector might be complied with. (2) *Home lessons.* (3) *The testimony of the teachers themselves*, who firmly believed in the existence of over-pressure. (4) *The condition of the children.* Dr. Browne observed that backward children were the ones who suffered from the effects of over-pressure. These children grow more stupid and seem to lose in general intelligence what they gain in mere technical knowledge of reading, writing and arithmetic.

Dr. Browne divides backward children into three classes, the dull, the starved, and the delicate. All of these were expected to go through the same amount of work and make the same progress as those who are healthy.

Dr. Browne points out the fact that over-pressure has its origin in great measure in the *examination* system, and this arose from a system of *payment by results* which were partial and not the final results, which could not be known under many years.

Dr. Browne attributes numerous conditions to this system of over-pressure. Insanity is steadily increasing from this cause, and suicide was instanced as coinciding with the modern extension of education. Diseases of the brain and nervous system, such as hydrocephalus and cephalitis, were

more clearly manifested as the evils of over-pressure.

The history of *headache* amongst children subjected to educational over-pressure was carefully investigated by Dr. Browne. The result of observations shows that 46.1 per cent. of the children professed to suffer from them habitually. It was further observed that in a considerable majority of cases the headache occurred in the afternoon. The headache was frontal in a very large proportion of cases.

The question of *sleeplessness*, *somnambulism* and *somniloquency* was inquired into and these symptoms were found to exist in a considerable proportion and to be more or less directly associated with over-pressure in school work.

Dr. Browne contrasted the condition of children in some schools with those of other schools to show their advantages and disadvantages from a physical standpoint and as illustrations of the injurious effects of over-pressure. The schools in the south of Scotland were considered in this respect superior to those of London.

Dr. Browne has indicated in his report the dangers which those who have charge of our educational systems should carefully guard against. It may be asserted that he has invested his investigations with some imaginary coloring, but there is much truth in his observations which entitles them to great respect and consideration.

It is quite evident that the educational department of all public schools should be placed under the supervision of intelligent and observing men, and it would be far better if a respectable proportion of every school board was composed of intelligent and conscientious medical men.

As Dr. Browne has shown, the results of over-pressure are far reaching and affect society in many directions. Too much care cannot be given to the development of the children who must soon become the citizens of our country.

Free Medical Education.—The rapid increase in the number of medical schools in this country has had the effect of promoting a system of free medical education which may be looked upon as a most unfortunate condition of affairs for the profession of medicine. The results of sharp competition in educating medical students are shown in several ways. The system is ruinous to the interests of the profession by bringing into its ranks excessive numbers of half-educated, illiterate and poorly-equipped men. It is also working great injury to many of the best medical schools of the country by forcing them to adopt beneficiary features and other methods which should have no place in a system of medical education. Under the laws of many of the States there is nothing easier to organize than a medical college. A few physicians organize a Faculty, issue a prospectus, rent a suitable building, and in order to fill their benches accept medical students upon any terms they may feel willing to make. When such institutions fail to live upon their tuition fees the assistance of the municipal and State authorities is invoked. Political considerations may even secure to these institutions the financial aid, which should go to older and more meritorious institutions. It is easy enough to see the forces at work in many communities, which are tending to lower the standard of medical education and to increase the number of medical graduates. It is quite evident that some step should be taken by the profession at large to overcome this influence. At the recent meeting of the Medical Society of Virginia this subject was considered of sufficient importance to call forth the following resolution which was adopted after being presented by Dr. Wm. W. Parker, of Richmond:

"*Resolved*, That, in the opinion of this Society, the establishment of eleemosynary medical schools with the present limited course of study in the States would be ruinous to the profession and a calamity to the public; that in our State it would be the means of driving away the best pupils and the most talented young men, and in the end ruin our own excellent medical schools where success and permanency should rest chiefly upon the talent of their teachers, and not upon the treasury of the commonwealth."

Miscellany.

Nervous Derangements of the Heart.—In the *Lancet*, June, 1884, p. 1068, Dr. Milner Fothergill divides diseases of the heart proper into—1. valvular; 2. muscular; and 3. nervous. It is with the nervous affections of the heart that the paper chiefly

deals, and the first of these is pure intermittence—a halt in the usual rhythmic stroke of the ventricles. It is very commonly met with in old or elderly men, and, if associated with organic disease, may occasion groundless alarm. It is a mere disturbance of rhythm, and, as far as our present knowledge goes, has no significance, unless found with other signs of degenerative change; then it has a significance, which, however, is borrowed from them, rather than furnished by itself. When intermittence is increased by effort, then it is well to examine the condition of the circulatory organs. When it is found with irregularity of rhythm, and this becomes more pronounced on exertion, the author states that then it is nearly certain that there is something more than a mere "neurosal halt." Another common neurosal disturbance of the heart is palpitation. Nocturnal palpitation is common in women at the menopause, where there is a suspicion of gout. In some cases it is brought on by coitus, in others it may be relieved by the sexual act. Palpitation may be set up by some abnormal condition existing elsewhere. A displaced uterus may be the provoking cause; and until the organ is once more in its normal position, little relief is obtained from treatment. At p. 1112 he describes a form of neurosal derangement of the heart which he terms "the badly behaved heart." It is mostly met with in women; the heart's action is persistently and continuously tumultuous, and there is a great deal of actual palpitation at times, with intervals when the heart's action is quieter, but never calm. The author concludes by drawing some broad distinctions between organic disease and neurosal affection of the heart. Organic change reveals itself in two ways: First, by signs discoverable upon physical examination, and second, by physiological indications of the effects of effort—as shortness of breath upon exertion, for instance. In neurosal affections there are no such evidences; the heart on examination is found normal except there is some perverted action. In the "irritable" heart, however, there is a certain amount of inability to bear any strain. The author lays stress on the statement, that a neurosal affection of the heart never develops into organic disease as a process of development.—*London Medicel Record.*

Syllabus of the Treatment of Cranial Fractures.—Dr. John B. Roberts, in *The Polyclinic* (Sept., 1884), says: "In the June number of *The Polyclinic* I expressed myself in favor of a more frequent adoption of trephining in cranial fractures. In the present paper I shall give a tabulated statement of what is, in my judgment, the proper treatment for each variety of such fractures. I admit that the line of treatment advocated is more heroic than that generally taught, but it has been accepted only after careful consideration of the reasoning of those who hold the opposite opinion to my own. Every case must be individually studied, and the patient's chances of death, of life with subsequent epilepsy or insanity, or of return to perfect health, carefully weighed; but for a working rule to guide the student and practitioner, I think experience will show that the indications given in the table are correct. Trephining, properly performed, is in itself so free of danger that in a doubtful case the patient had better be trephined than allowed to run the risk of death, epilepsy or insanity.

SYLLABUS OF THE TREATMENT OF FRACTURES OF THE CRANIUM.—SIMPLE FISSURED FRACTURES.

1. No evident depression, no brain symptoms. No operation.
2. No evident depression, with brain symptoms. Incise scalp and trephine.
3. With evident depression, no brain symptoms. Incise scalp and possibly trephine.
4. With evident depression, with brain symptoms. Incise scalp and trephine.

SIMPLE COMMINUTED FRACTURES.

5. No evident depression, no brain symptoms. Incise scalp and probably trephine.
6. No evident depression, with brain symptoms. Incise scalp and trephine.
7. With evident depression, no brain symptoms. Incise scalp and trephine.
8. With evident depression, with brain symptoms. Incise scalp and trephine.

COMPOUND FISSURED FRACTURES.

9. No evident depression, no brain symptoms. No operation, but treat wound.
10. No evident depression, with brain symptoms. Trephine.
11. With evident depression, no brain symptoms. Possibly trephine.

12. With evident depression, with brain symptoms. Trephine.

COMPOUND COMMINUTED FRACTURES.

13. No evident depression, no brain symptoms. Probably trephine.
14. No evident depression, with brain symptoms. Trephine.
15. With evident depression, no brain symptoms. Trephine.
16. With evident depression, with brain symptoms. Trephine.

PUNCTURED AND GUNSHOT FRACTURES.

17. In all cases and under all circumstances. Trephine.

In classes 3 and 11 I should be inclined to trephine if the depression was marked, or the fissures sufficiently multiple to approach the character of a comminuted fracture.

In classes 5 and 15 I should trephine, unless the comminution was found to be inconsiderable.

The operation, when decided upon, should be performed at once, or certainly not delayed more than a few hours.

All cases, whether trephined or not, should be treated as cases of incipient inflammation of the brain."

THE PREVENTION OF OPHTHALMIA NEONATORUM..—A recent number of the *Archiv für Gynäkologie* (Band XXII., Heft 2) contains an article on this important practical subject, by Dr. G. Krukenberg. Its object is to put before the profession the experience of the obstetric clinic at Bonn, with regard to the prophylactic measures recommended by Credé. During the six years preceding the adoption of these precautions, ophthalmia occurred in 7·3 per cent. of the children born. In February, 1881, prophylactic treatment, after the method of Olshausen, was begun: that is, immediately after the birth of the head the eyelids were washed with a 2 per cent. carbolic acid solution, and the conjunctiva mopped with a similar solution. This was practiced till June, 1881, in which period 82 children were born, and 11 of them developed ophthalmia, or 13·4 per cent. This treatment, therefore, was a failure. In June, 1881, the method of Credé was adopted, with the modification that instead of a 2 per cent. solution of nitrate of silver in water, a vaseline ointment of the same strength was employed. The eyelids were, when possible, washed immediately after the birth of the head with a 2 per cent. solution of carbolic acid, and then the lids opened so widely as to expose the cornea, upon which a piece of the ointment was laid with a glass rod, and the lids then closed. The result has been that out of 703 children born up to November, 1883, only four have suffered from ophthalmia, or 0·56 per cent. In three of these cases Dr. Krukenberg believes that the child was infected subsequent to birth, from the fact that the disease did not appear till the 7th, 8th and 9th days respectively. If this view be accepted, the percentage of ophthalmia caused during delivery is reduced to 0·14 per cent. The four cases all recovered well without injury to the cornea. Dr. Krukenberg discusses the respective advantages of the vaseline ointment and the watery solution. The vaseline adheres better, but he thinks the watery solution, which has only to be dropped in, safer in the hands of a midwife. Credé's own results, too, are a trifle better than those at Bonn, and therefore at the latter institution they adopted the solution in place of the ointment. The first case in which the solution was employed developed ophthalmia, which was cured by using the ointment.—*London Med. Times.*

PHOSPHATED PEPTONES IN OBSTINATE VOMITING OF PREGNANCY.—Dr. A. Judet calls attention to the necessity of administering phosphate of lime in pregnancy and during lactation. This is particularly indicated when the father or mother has a scrofulous diathesis. By its action it is an element which meets the drain upon the osseous system of the mother; and being an excitant of nutrition it causes assimilation of the albuminoids, thus fortifying, in a measure, the organism and placing the mother in the best condition for furnishing without fatigue the proteic elements necessary for the development of the fœtus.

He reports the case of a woman, twenty-seven years of age, who was having attacks of uncontrollable vomiting, being in the third month of utero-gestation. Chloral and valerianate of caffeine gave only temporary relief. Phosphated peptone in an infusion of bitter orange-peel was then given, six teaspoonfuls of the former being given duing the day. After slight symp-

toms of intolerance, this was well retained and the proportion was gradually increased to twelve teaspoonfuls a day, this being the only food taken. This exclusive régime was kept up for five days, after which she began to take small quantities of other food. The peptone was continued in doses of two to four teaspoonfuls a day not only during pregnancy, but during the whole time of lactation. Digestion, which after all former pregnancies had been painful, was now performed in a normal manner. In previous pregnancies she had been unable to nurse her children, but she nursed this child during the full period, and its dentition was much earlier than that of any of the others.

It should be remarked that there are differences in phosphate of lime, and it should be carefully selected, and furthermore it is assimilated with ease by the system only when combined with a nutriment proteic substance. Peptone and phosphate of lime make a very rational and *physiological* preparation for building up the osseous and muscular systems.—*Gazette Hebdom.*, Aug. 8, 1884.—*Med. News.*

The Treatment of Ozæna.—The *Centralbl. fuer die Gesam. Therapie.*, of February, 1884, contains an article on the treatment of ozæna, by Dr. Roth, of Vienna. He objects to the general use of the term as applied alike to all conditions which may cause the particular symptom, and he would use the name ozæna only for what he calls the genuine variety, characterized, not by any decay of the bones or soft parts, but by hyperæmia and hypertrophy of the mucous membrane, with increased quantity and diminished fluidity of the secretion, which rapidly dries, and hardens into cakes. The mucous membrane is often found in parts in a state of atrophy, which seems to be the secondary condition of the foregoing hypertrophy; and this atrophy may extend to the turbinated bones, which will then present no trace of their previous form or structure. The fœtor results from the access of germs to the secretion, as has been proved by experiment. When the anterior and posterior nares have both been stopped, so that no air has been permitted to enter, the fœtor has failed to appear, but has been detected after the secretion has been exposed to the air for some time, when micrococci and bacteria have been found in it in great numbers. The proper name for such an affection is rhinitis chronica atrophicans fœtida, and the indications of treatment are to loosen and remove the secretion, to restore the mucous membrane to its normal condition, to remove the odor, and to cure any prevailing dyscrasia. Dr. Roth effects those ends by means of plugs of cotton-wool, charged with iodoform, which he introduces into the nostrils at night, and removes in the morning. They act as a disinfectant, retain the secretion, and exercise salutary pressure on the mucous membrane, irritating it slightly, so that an increased quantity of blood is brought to it, and the secretion becomes more fluid. After the removal of the plug, the nasal cavities are washed out with a solution of thymol, carbolic acid, or chlorate of potash, combined with alum or tannin, by means of a special nasal spray, which conveys the fluid to the very back of the nose. Special causes must be removed according to their indications, but in the case of tuberculous affections the local treatment should be confined to disinfection, and reliance is to be placed chiefly on general dietetic measures. Dr. Roth concludes by remarking that only those cases which come under treatment in the early stages of hypertrophy are curable, but that, unfortunately, this obstinate and peculiarly objectionable complaint is generally first seen when atrophy has already begun, and when the treatment of the fœtor is all that can be hoped for, until the mucous membrane, with its glands, is completely destroyed.—*Med. and Surg. Rep.*

The Treatment of Lupus.—Schwimmer (*Wien. Med. Wochenschrift*, 1884, Nos. 20 to 22) strongly advocates the employment of pyrogallic acid and mercurial plaster for the treatment of lupus, and he gives a series of cases in which these remedies were followed by excellent results. The peculiarity of his plan is that the remedies are used in sequence, the action of one being supplemented by that of the other. He first applies vaseline to the diseased part till all crusts are removed, after which a ten per cent. ointment of pyrogallic acid and vaseline is applied, the dressing being changed two or three times a day and continued for from four to eight days, according to the activity of the process and the effect produced. Vaseline is then again used for a few days until the irritant effect of the acid

is moderated, and then the mercurial plaster is applied and worn for from ten to fourteen days, the plaster being changed two or three times a day if there is much discharge, otherwise only once a day. After two weeks, if any nodules are seen in the cicatrix, the same cyclus of treatment is repeated, beginning with the vaseline as before, but using the pyrogallic acid this time for only three or four days. Generally, the writer states, two courses will be enough to cure the disease, though in some cases a third may be required. The duration of the treatment by this method is said to be from three to four months.—*N. Y. Med. Jl.*

Antipyrin in Diseases of Children.—Drs. Penzoldt and Sartorious have made a number of trials of antipyrin in the treatment of children's diseases, and report the following conclusions in the *Berliner Klinische Wochenschrift* of July 28, 1884:

1. Antipyrin is to be regarded as a very effectual remedy in the pyretic diseases of childhood.

2. In suitable doses it lowers the temperature several degrees, and the effects continue for several hours.

3. The pulse rate is never reduced in a degree corresponding to the fall of temperature.

4. The effect upon the general condition is usually good.

5. The only disturbance that it ever causes is occasionally vomiting. When this occurs the remedy may be given by the rectum.

6. Antipyrin should be given in three doses at an interval of an hour. Each dose should consist of as many decigrammes (one and a half grains) as the child has lived years. If this dose is insufficient, as may often be the case in small children, it should be increased a decigramme at a time until the desired effect is obtained. When administered by the rectum, a single dose of from three to six times as many decigrammes as the child counts years may be given.

7. When the use of the drug has been long continued the organism seems at times to become tolerant, and then the dose must be increased cautiously.—*Med. Record.*

The Abortive Treatment of Soft Chancre.—Such is the promising title of a paper by Hans von Hebra (*Wien. Med. Presse*, xiv, 1884), in which are reported ten cases of non-infecting chancre successfully treated by local applications of salicylic acid; though, so far as they go, the results are excellent, the number of cases is far too small to warrant general conclusions. The method consisted in applying pure salicylic acid directly to the ulcer, care being taken not to allow it touch sound parts, after carefully washing the affected member with warm water. The acid is covered over with a piece of lint. and a strip of adhesive plaster is placed over all. We are cautioned to wash off any remains of previous applications—as of lead, zinc, or mercury—with soap and water, since salicylic acid is liable to combine with these substances and prove more caustic than we wish. If the ulcer is of a mild type, the dressing need be renewed but once in twenty-four hours; but, if there is a good deal of secretion, it should be changed twice a day. During the first day the ulcer covers itself with a white scab, while the surrounding parts become red. After the third day, by which time the scab attains a considerable size, the use of the acid must be stopped. The subsequent treatment consisted in the use of some emollient ointment, under which the scab became detached in half a day, leaving a healthy raw surface, which healed in two to three days. The writer states that by this method the sore heals in as many days as it takes weeks to heal it by other methods. The treatment is said to be almost painless, and is also very cleanly. In none of his ten cases were there any buboes. [It may be mentioned that this same method of treatment was in use in this city five or six years ago.]—*N. Y. Med. Journ.*

The Hypodermic Injection of Amyl and Epileptiform Convulsions.—Dr. Sydney Ringer, according to the *London Med. Record* (August 15th), has noticed the occasional action of the nitrite of amyl upon the heart, and the strange effect sometimes produced upon the nervous centres. He says: "I have seen one case where a woman immediately after a drop dose turned deadly pale, felt very giddy, and then became partially unconscious, remaining so for ten minutes." And again: "A delicate woman, after one-thirtieth of a drop, passed in a few moments into a trance-like state." In a case described by Dr. Strahan,* a chronic maniac, aged fifty-three, had suffered for

several days from severe lumbago; a ten minim dose of a ten per cent. solution of nitrite of amyl in rectified spirits was injected hypodermically. "Immediately after the injection the pain disappeared. He got up from the bed, and at my request stooped and touched the floor with his fingers. In, as near as could be guessed, about a minute and a half, he suddenly became deadly pale, and sank back upon the bed." Then his face, head (bald), and neck became congested, and he was strongly convulsed for about half a minute. The convulsion affected the face and arms strongly, the legs slightly. The teeth were ground, and the breathing was suspended. In a few minutes, after coming out of this fit, he was attacked by a second one, during which the heart's action became very faint. He was made to inhale some chloroform, and the fits did not return The lumbago entirely disappeared. This observation is interesting, as inhalations of nitrite of amyl have been recommended, both in England and in Italy, to check the recurrence of epileptic convulsions.—*Bost. Med. and Surg. Journ.*

* Journal of Medical Science, July.

Osmic Acid in the Treatment of Epilepsy. — Wildermuth ("Berliner Klin. Wochenschrift;" "Centralbl. f. Med.") has experimented for the past two years with osmic acid as a remedy for epilepsy, using pills of osmate of potassium, each containing one one-thousandth of a gramme of the salt. The largest amount given in a day was fifteen one-thousandths of a gramme. The trials were begun upon ten confirmed epileptics. Seven showed no result; in two the attacks became less frequent; and in one, whose case was apparently quite desperate, a most astonishing change took place, consisting of a prompt diminution in the frequency and severity of the attacks, and their final disappearance, together with an improvement in the mental condition. Of three patients with whom the osmic-acid treatment had only recently been begun, two showed perceptible improvement, and in the third no effect was noticed. In none of the cases were any evil effects observed. —*N. Y. Med. Journal.*

Murdock's Liquid Food.—"This American preparation," says the "Lancet," "is described as 'an extract of beef, mutton and fruits, containing corpuscles and 12½ per cent. of soluble albumin.' The solution gives the blood-spectrum very strongly, and contains so much albumin as to become almost solid with dilute nitric acid. Of course, it is an exceedingly powerful and easily digestible form of food. It is calculated to be of the utmost use in medical practice; and although the flavor is not very pleasant, it is not absolutely disagreeable, and may, no doubt, be modified by salt and spices. Among other applications, the use of the liquid food as an enema will strike every one."—*N. Y. Med. Journal.*

Death of Dr. W. D. Pender.—Many of the graduates of the University of Maryland, of the class of 1883, will be pained to learn of the death of Dr. Pender, which took place in Tarboro, N. C., on September 24th, from typhoid fever, at the early age of 20 years and 11 months. Dr. Pender graduated in 1883, when 19 years of age, with high distinction, being the recipient of the Miltenberger Prize. After graduating he formed a co-partnership with Dr. Hargrove, of Robinsonville, N. C., and was practicing with success up to the time of his illness.

Treatment of Leg Ulcers.—Dr. Roberts has recently had excellent results in chronic ulcers of the legs, after sprinkling powdered chloride of sodium thickly over the surface of the ulcer, once every three or four days, and dressing the sores twice daily with corrosive sublimate ointment. The ointment contains half a grain of the mercuric chloride to the ounce of cerate. Chronic ulcers with callous edges are often most expeditiously treated by the surgeon excising them by means of an elliptical incision, and closing the wound with sutures. —*Polyclinic.*

A Good Diuretic.—The followin combination recommended by Dr. Fothergill, will be found a useful diuretic:

℞ Pot citrat. ℥iiss.
Spt. Juniper Co. ℥!.
Tr. Digitalis ℥iiss.
Inf. Buchu. ad. ℥viij.—M.

Sig. One to two tablespoonfuls three or four times a day.

Medical Items.

A movement was set on foot at the recent meeting of the Medical Society of Virginia to organize a Tri-State Medical Society, representing the States of Virginia, West Virginia and North Carolina.=The Medical Society of Virginia will hold its next annual meeting at Alleghany Springs, Montgomery county, near the Norfolk and Western Railroad.=Mr. Lawson Tait, during his visits to Philadelphia and New York, has delivered clinical lectures at the Jefferson Medical College and Bellevue Hospital. Mr. Tait has produced the impression that he is not only an accomplished surgeon, but also a man of attractive personal appearance.=Dr. W. S. Playfair, of London, the well-known author of the popular Text-book on Midwifery, is visiting this country, and was recently entertained by Dr. Thomas A. Emmett at a public reception.=Mr. John F. Keating, a medical student in the medical department of the University of New York, recently committed suicide in New York City. It is thought he was not sane at the time.=In Paris dermatology is at a low ebb.=A School of Dentistry, under the direction of Professor Dr. Fr. Hesse, is to be opened at the University of Leipzig.=The Pope has given $200,000 for the erection of a new hospital at Rome.=The twelfth annual meeting of the Americal Public Health Association will be held in St. Louis, beginning Tuesday, October 14th, 1884.=Dr. R. S. Payne, a prominent and well-known physician of Lynchburg, Va., died in that city on the 27th of September.=All the Medical Schools in this city begin their regular winter course of lectures on Wednesday, October 1st. At the University of Maryland the opening lecture was delivered by Prof. R. Dorsey Coale; at the College of Physicians and Surgeons, by Prof. A. B. Arnold, and at the Woman's Medical College, by Prof. Randolph Winslow. We understand the classes of students promise to be large.=Mr. John W. Garrett, the late President of the Baltimore and Ohio Railroad, has left an annual donation of $56,000 for charitable purposes. It is to be presumed that a portion of this fund will be appropriated to hospital purposes.=Dr. Fleetwod Churchill, the eldest son of the author of Churchill's Diseases of Women, died recently in Dublin, Ireland.

Official List of Changes in the Stations and Duties of Officers Serving in the Medical Department, U. S. Army, from Sept. 23, 1884, to Sept. 29, 1884:

White, A. H., Captain and Assistant Surgeon, assigned to duty as Post-Surgeon at Fort Winfield Scott, California, relieving Assistant Surgeon A. S. Pohlemus, who, upon being relieved, will report to commanding officer, Alcatrag Island, California, for duty.

Hall, Jno. D., Captain and Assistant Surgeon, assigned to duty at Fort Townsend, Washington Territory, to relieve Surgeon R. S. Vickery. Surgeon Vickery, on being relieved, directed to report to commanding officer, Vancouver Barracks, Washington Territory, for duty.

Tesson, L. S., Captain and Assistant Surgeon, directed to report to commanding officer, Fort Stockton, Texas, for temporary duty.

Birmingham, H. P., First Lieutenant and Assistant Surgeon, leave of absence extended twenty days.

Maddux, T. J. C., First Lieutenant and Assistant Surgeon, directed to report to commanding officer, post of San Antonio, Texas, for duty.

Barrows, C. C., First Lieutenant and Assistant Surgeon, leave of absence extended one month.

Dietz, W. D., First Lieutenant and Assistant Surgeon, assigned to duty at Fort Seldon, New Mexico. (Post-Surgeon).

McCaw, W. D., First Lieutenant and Assistant Surgeon, assigned to duty as Post-Surgeon, Fort Craig, New Mexico.

Official List of Changes in the Medical Corps of the U. S. Navy for the week ending September 27th, 1884:

Bloodgood, D., Medical Inspector, to Washington for examination preliminary to promotion, and as to qualifications for sea duty, October 1st, 1884.

Hard, W. T., Medical Director, as member of Naval Examining Board, October 1st, 1884.

Turner, T. J., Medical Director, as member of Naval Examining Board, Oct. 1,1884.

Boyd, J. C., Passed Assistant Surgeon, placed on waiting orders, Sept- 25th, 1884.

Oberly, A. S., Surgeon, to Washington for examination preliminary to promotion, and as to qualifications for sea duty, October 1st, 1884.

Original Papers.

INTRODUCTORY ADDRESS, DELIVERED BEFORE THE CLASS OF THE WOMAN'S MEDICAL COLLEGE OF BALTIMORE, OCTOBER 1, 1884.

BY RANDOLPH WINSLOW, A. M., M. D.,

Professor of Surgery, etc.

Through the courtesy of my colleagues of the Faculty, I have the honor to be their spokesman and to extend to you their greetings and a cordial welcome to our halls. To those of you who have attended our lectures during previous sessions, and who now return from your well-earned vacation, we express the hope that you may resume your studies invigorated both in body and in mind. Those of you whose acquaintance we now make for the first time, and who stand as it were upon the threshold of a new life, we bid: Be of good cheer; enter upon the new duties which now await you with determination and hope. That difficulties and obstacles await you cannot be denied, but by perseverance, zeal and industry they can be overcome, and your labor will bring its own reward.

As an introduction to the study of that science and art upon which you have now entered, it may not be unprofitable to briefly consider its history from remote ages to the present time. The first beginnings of medical knowledge, and the application of remedies to disease are veiled in the impenetrable mists of antiquity. It is indeed probable that the practice of medicine is coeval in age with man himself; and as expressed by Le Clerk, that Adam was of necessity the first physician, surgeon and accoucheur in the world. "Of the state of medicine before the flood," says Hamilton, "we are destitute of the slightest authentic records, on which we might form a conjecture. We are, however, justified by many circumstances recorded in the Holy Scriptures, in believing that medical as well as many other branches of useful knowledge had arrived at a very considerable degree of perfection in the antediluvian ages."

After the flood and during the patriarchal times, there is an almost equal paucity of facts upon which to build hypotheses in regard to medical theories and practice. With the single exception of the surgical rite of circumcision, ordained about 1898 years before the Christian era, we are furnished with no information concerning the medicine and surgery of the patriarchal ages.* The first attempt to systematize the study of medicine appears to have been made by the Egyptians, but the prerogative to practice the art was soon assumed by the priesthood, who endeavored to increase their popularity by surrounding their methods of cure with incantations and religious rites. It is probable, however, that they possessed some practical skill in the treatment of ordinary diseases. These priest physicians are spoken of as the wise men—magicians and sorcerers—in the 7th and 8th chapters of Exodus.

The Jews, from having been so intimately associated with the Egyptians, necessarily carried away with them many of their peculiar customs. With them also all medical functions were vested in the priesthood, but upon certain rather rare occasions supernatural cures were wrought through the prophets, as the healing of those bitten by serpents by looking upon the brazen serpent which Moses set up; the healing of Naaman, the Syrian, by Elisha, who directed him to wash seven times in the dirty river Jordan. It is probable that Naaman was himself accustomed to having medical advice and treatment dispensed with all the mystery and superstitious rites which it was the custom of the priests to practice; for the record states that "Naaman was wroth, and went away and said, behold I thought he will surely come out to me and stand and call on the name of the Lord his God, and strike his hand over the place and recover the leper."

It is certain that the Jews possessed some knowledge of drugs, as we find frequent references to various medicinal plants, but the medical profession did not appear to be held in much repute if we may judge by the succinct account of King Asa's death, as detailed in II Chron. ch. xvi, v. 12: "And Asa in the thirty and ninth year of his reign was diseased in his feet, until his disease was exceeding great: yet in his disease he sought not to the Lord, but to the physicians. And Asa slept with his fathers." B.C. 914.

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*It has been proven by Paul Broca that it was the custom of a certain race of prehistoric men to trephine the skull, either as a charm or a religious rite.

It is to Greece that we must look for the greatest advancement of ancient medicine. Whilst the early history of hellenic medical lore is shrouded in mystery, it cannot be doubted that the first impulses towards the development of medical knowledge came from Egypt. I will omit much mention of Melampus, whose use of hellebore is commemorated by the name melampodium, which is applied to a species of hellebore to this day; of Chiron, the centaur, from whose name chirurgie, chirurgeon (surgery, surgeon), are derived. Whilst this fabulous person, half man, half horse, is celebrated in the annals of Greece as a teacher and practitioner of medicine and surgery, it is highly probable that a person of that name, skilled in medical arts, did live in the early history of Greece, and that from having been an expert horseman, he in the course of time became known as the Centaur. Amongst the pupils of Chiron, whose names have come down to us, none have attained so great renown as Æsculapius, subsequently worshipped as the God of medicine. Notwithstanding the many mythical accounts which have been interpolated into the history of Æsculapius, there is every reason to believe that he was a man, not a god, distinguished for medical and surgical knowledge far beyond his day and generation—about 1100 B.C. Of his birth and ancestry there is some doubt; whether he was a Greek or Phœnician is still a disputed point. By some his name is derived from the Phœnician, "Is Calaphot," meaning a man of the knife, and hence we may suppose him to have been the Father of Surgery.

It is probable that the repair of injuries and the healing of wounds formed not only the greater part of the duties of the medical profession in those early days, but that they were much more skilled in the treatment of these obvious traumatisms, than in the subtler mysteries of internal medicine. It is almost certain that previous to the time of Æsculapius no definite plan of treatment was differentiated, but that every physician relied either upon his own individual observation and experience, or blindly prescribed those remedies with which he had a traditional acquaintance; in most cases combining superstitious rites and divinations with his healing potions or assuaging salves.

Æsculapius appears to have been the first physician to pay bedside visits to his patients. This is his greatest claim upon our recognition, as by this act he rescued medicine from the most rabid empiricism, and laid the foundation of rational clinical practice. After the death of Æsculapius temples were erected to his memory, and he was worshipped as a divinity. A very important era in the history of medicine is now reached. These temples were hospitals or sanitaria, and were spacious, elegant and salubriously situated, especially those of Epidaurus, Pergamus, Cnidos and Cos. The priests or attendants were called Asclepaidæ, or Sons of Æsculapius. At these temples or sanitaria the sick enjoyed not only the special medical treatment of the Asclepaidæ, but probably derived equal benefit from the change of scene, the improved hygiene, and the judicious exercise. The well-to-do patients were encouraged to deposit votive tablets recording the history of their cases, and sometimes drawings or models of the part affected; thus by the accretion of these records a mass of valuable information was stored up, and as a natural sequence the temples of Æsculapius became in the course of time schools of medicine. With the exception of Pythagoras, no name of great note is found in the long space of 700 years between Æsculapius and Hippocrates. It is probable that medical knowledge was being moulded into a more compact shape, but as yet it consisted in great part of isolated observations and unclassified facts, and formed a rude, incoherent, inconsistent art.

With the birth of Hippocrates we pass from the realm of fable to that of authentic fact; and the most momentous epoch in the history of ancient medicine is reached. This renowned physician and author was born on the little island of Cos in the Ægean Archipelago, memorable as the birthplace of some of the most illustrious men of ancient times. He was the son of Heraclides, and belonged to the order of Asclepaidæ. His father and grandfather were physicians of distinction, and our author was reputed to be the 17th in lineal descent from Æsculapius, on the father's side, and the 25th from Hercules on the maternal. At the time of his birth, about 460 B.C., the Asclepion or temple of Æsculapius at Cos was both the most celebrated as well as the most ornate in existence. Here were master-pieces by Apelles, the greatest painter

of antiquity, and elaborate sculptures and grand statues. The age in which Hippocrates lived was one of the greatest intellectual activity—Phidias, the sculptor, Apelles, the artist, Pericles, the statesman, Socrates and Plato, philosophers, Xenophon, Thucydides and Herodotus, historians, Æschylus, Sophocles, Euripides and Pindar, poets, besides others too numerous to mention, were his contemporaries, and shed such lustre upon their time that it is known as the Golden Age of Greece. Hippocrates was instructed in the medical and scientific lore of his day, but to one of his genius this was not sufficient. He soon began the attempt to rid medicine of the vain and foolish rites and superstitions with which it was commingled. He taught that disease was not the result of the anger of the offended deities, but was due to specific causes, which it was the duty of physicians to investigate and combat. From the study of the tablets in the temples he learned to classify cases resembling each other and to deduce logical conclusions in regard to their nature and treatment. Much more, however, he derived from the study of Nature itself. The ready tact and acute powers of observation of a master mind were devoted untiringly to the investigation of the clinical phenomena and causes of disease, and to the consideration of the action of drugs upon healthy and diseased organisms. He thus clearly indicated the only means by which the medicine of his day and of ours can be advanced, to wit: by experimentation and clinical observation. That he was lead into many errors cannot be a matter of surprise to us, when we consider that it is almost certain that no one had yet dared to dissect the human body, and whatever knowledge of anatomy was possessed was the result of accidental circumstances and of dissections of animals. Having therefore no accurate anatomical knowledge upon which to base the study of physiology and pathology, the wonder is not at what he did not know, but that from such imperfect premises he could deduce conclusions, many of which, after twenty-three centuries, are held in high esteem and admiration.

Not only had he a wide reputation as a skillful practitioner of medicine, but he was a surgeon of great boldness and originality; fractures and dislocations were reduced and scientifically treated; instead of starch or plaster of paris, he used waxed bandages aud splints, and held it to be disgraceful for the surgeon to allow his patient to have a shortened or deformed limb. The cranium was trephined, the chest opened for empyema, abscesses of the liver incised, the projecting ends of bones in compound fractures resected, limbs amputated, and the fœtus extracted with forceps. He was equally distinguished as an author, and for many centuries his authority was regarded as almost supreme. Galen, who wrote about 450 years subsequently, declares the opinion of Hippocrates to be "as respectable as an oracle." In the language of Mr. Moir, "Hippocrates has a strong claim to be considered as the Father of Physic. He found it a chaos of undigested observations, and he left it in the shape of a science. For medicine and surgery, he did far more than all who had gone before him put together; and we scarcely hesitate to add, as much as any individual who has come after him." After the death of Hippocrates eminent practitioners arose here and there, but on the whole there was a gradual retrogression until medicine became inseparably contaminated by vain philosophy. It is true Aristotle decidedly enlarged the area of anatomical knowledge by his dissections of animals, but it is probable that he never took up the healing art as a profession. Upon the dismemberment of the Grecian Empire, about 300 years before the Christian era, Alexandria, through the munificence of Ptolemy Soter, became the centre of learning of the world, and especially was the cultivation of the medical arts encouraged. The magnificent library which was founded by the Ptolemies eventually contained 700,000 volumes. Hospitals and museums were established, and the medical school of Alexandria attracted pupils from all quarters of the world. The most celebrated Professors of the Alexandrian school were Herophilus and Erasistratus, who were the first to place medicine upon the solid foundation of anatomy, physiology and pathology.

These famous anatomists were the first to overcome the popular prejudice against dissecting the human body, and, if rumor is to be credited, they not only dissected dead bodies, but also living criminals.

The many discoveries made by these celebrated anatomists must be passed over;

but upon their labors the fame of the Alexandrian school to a large extent depended. In this day the name of Herophilus is commemorated in the "torcular Herophili." Not only did they study the structure of the human body and its physiology, but Herophilus may be regarded as the founder of pathological anatomy, as he was the first person to perform autopsies for the purpose of ascertaining the cause of death. It will be seen that the fame of the school of Alexandria rested largely upon an anatomical basis, and that its inauguration marked a most important epoch in the history of medicine. For five hundred years the influence of this school predominated over the whole civilized world, and to have been a student at Alexandria was a certain introduction to fame and riches. After the subjugation of Egypt by Julius Cæsar, the proud position of Rome as the mistress of the world, attracted the attention of men of letters and sciences, and the prestige of the Alexandrian school gradually waned. Rome became the centre of intellectual activity, and to Rome, therefore, we must now turn our attention in tracing the history of medicine. Two names of surpassing eminence stand out boldly as exponents of Roman medical doctrine and practice, Aurelius Cornelius Celsus, A. D. 25, and Claudius Galenus, A. D. 150. Celsus is especially celebrated as an author, whose writings are composed in the most elegant and chaste Latin, and are to this day regarded as models of Roman literature. From his elegance of diction and conciseness of style he is called the Cicero of Medicine. His immortal work consists of eight books containing a careful compendium of medical art to his own time. His works showed a great advance in medical progress; and that part devoted to surgery is said to be far superior to all previous surgical writings, and to any subsequent ones for 500 years. The method of performing lithotomy described by him has since borne the name of Celsian operation, and is that which is spoken of as "cutting on the gripe," which was the method followed exclusively for 1600 years. In the century following the death of Celsus, no definite system of medicine appears to have been in vogue, but the profession was divided into many sects, between which wrangling and contention was the order of the day. Upon this disturbed arena the majestic figure of Claudius Galenus appeared about 164 A. D. Galen is the most remarkable character of ancient medicine. His learning was immense, his genius grand, his industry fabulous. Not only was he possessed of all the knowledge of his own and of preceding ages, but following Hippocrates he chose nature as his teacher, and imbibed fresh lessons at this font of truth. He endeavored to lead the Roman physicians into this path of investigation, but met with such ill success and excited so much envy that he was obliged to flee from Rome. Subsequently, however, he returned and gained the confidence of the people and rose to great renown. He was a practical anatomist of great industry, dissecting both animals and men. More humane than Herophilus and Erasistratus, his vivisections were performed upon animals and not upon living criminals; he, therefore, cultivated physiology with perseverance and success. In order to acquire knowledge of various kinds he made many distant journeys, traveling on foot in order the better to make his inquiries and observations. As a practical physician his skill is said to have been marvelous. As an author his prolificness and his profundity of knowledge has remained the wonder and admiration of all succeeding ages. He enriched medicine in all its branches. Many of his observations are so complete that but little has been added to or detracted from them in the past 1700 years. Although not preeminently a surgeon, some of his surgical maxims and operations are worthy of the notice of the present day. He described and reduced luxations of the femur and mirabile dictu, diagnosticated a mediastinal abscess, trephined the sternum, evacuated the pus and cured his patient. Fain would we dwell longer upon the history of this wonderful man of old, to whom the title of "wonder worker" and "wonder speaker" was applied by his associates and pupils, but one more example of his industry and we are done. It is supposed that he wrote 500 distinct treatises upon various subjects. A large number of his manuscripts were destroyed by fire, many have since been lost in the mould of centuries, and there are now extant and in print eighty-three complete works, of the genuineness of which there is no doubt, besides some fragments of treatises in manuscript which are deposited in various European libraries. Fifty of his

works upon medical subjects have been lost. Dr. George Jackson Fisher (to whose delightful sketches in the Annals of Anatomy and Surgery I am under obligations for much of the subject matter of this address) has instituted a comparison between the bulk of Galen's extant writings and that of the Scriptures, and finds that whilst the united lines of the Bible amount to 3 miles, 240 feet, the length of Galen's lines are 16½ miles, or 5½ times more than the entire Old and New Testament. "What a mass to read! What a mass to have been copied and recopied with the pens of patient and industrious scribes, for a period of nearly 14 centuries!" For 1400 years Galen's works continued to be the oracles from which medical men derived their inspirations, the authority of which was regarded as supreme and almost sacred. With the death of Galen began the twilight of that decline of knowledge which terminated in the black midnight of medieval ignorance. It is true the arts and sciences were still cultivated for some centuries, and medical practitioners and authors of eminence shone forth here and there, but the tendency of the times was downwards and no person of master mind arose to stay the torrent. Several factors combined to cause this decay of learning. The Roman Empire became enervated by the vices and luxury of its own people and eventually fell a prey to the repeated inroads of the Northern barbarians. The Byzantian Empire held out longer, and for a time Constantinople afforded a refuge to men of learning, but the fell spirit of decay rested upon the times and gradually it also was forced to yield to its sway. The advent of Mahomet and the destruction of the magnificent library at Alexandria, A. D. 640, added yet more to the deepening gloom. Fortunately for succeeding generations, many of the best works of the Alexandrian library escaped the flames, and soon numerous translations of the Greek medical writers were made into the Syrian language. Thus the Saracens were imbued with a love for medical knowledge, which was encouraged to a princely degree by several of the Caliphs. A medical school was established by Alamanzor at Bagdad, which at one time attracted thither 6000 students. To the Arabians is due the credit of preserving what remains of ancient medicine. At the time of the destruction of the Alexandrian library they were a rude, semi-barbarous, ignorant people. Under the influence of the men of science and the literature with which they became acquainted, they became the conservators and protectors of all knowledge. Whilst the Arabian and Persian scholars were industriously transcribing from the Greek, it must not be thought that they had no authors of their own, or that they did not enrich the heirloom of medicine which they had inherited. They introduced chemical agents as remedies, and especially in pharmacology did they improve medical art. In surgery also many new operations were described and successfully performed.

(*To be continued.*)

Selected Paper.

THE NATURAL PRODUCTION OF MALARIA AND THE MEANS OF MAKING MALARIAL COUNTRIES HEALTHIER.[1]

BY PROFESSOR TOMMASI CRUDELI.

[*Continued from Page 448.*]

Furthermore, we have had in Rome during the past few years, some very evident proofs of the efficacy of atmospheric methods of purification. I will confine myself to the relation here only of the most striking instance, one which has been furnished us in the building up of new quarters of the city. There was much discussion at first as to whether the improvements should be undertaken in the parts where they now are or in the valley of the Tiber, for the uncovered lands of the Esquiline and of the Quirinal were malarious, and, as nearly everybody then thought that the malaria of Rome was carried into the city from the coast marshes, it was supposed that this state of things was irremediable. We opposed to this view the fact of the salubrity of the Viminal, which is situated between the Esquiline and the Quirinal, and which ought to be as unhealthy as the two other hills were the malaria of the latter imported into the city instead of being indigenous. Believing it to be indigenous, we hoped that by shielding the surface of

1. An Address delivered at the Eighth Session of the International Medical Congress, Copenhagen, August 12, 1884. Reprinted from *Medical Record*, New York,

these hills from the direct action of the air (by building houses and paving the streets), the malaria would cease to be produced there. That is precisely what has happened, for the new quarters are very healthy. But the malaria is only held in abeyance, and is not definitely overcome; for if an extensive excavation is made in these hills, and the contact of the air with the malarious soil is thus re-established, during a hot and damp season, the production of malaria commences anew. A complete atmospheric purification is nevertheless the most stable of all the methods of obtaining a suspension of malarial production, but, unfortunately, its realization is very limited, for it is restricted to inhabited localities and to sodden surfaces.

The ideal method of ensuring freedom from malaria should be to obtain a permanent immunity, that is, to be able to modify the composition of the infected soil in such a way as to make it sterile as regards malaria, without taking from it the power of furnishing products useful for the social economy. But all the elements indispensable for obtaining such a result fail us utterly just here. We do not yet know what ought to be, in general terms, the composition of a soil incapable of producing malaria, yet retaining those properties which are suitable for vegetation. When we have arrived at this first stage, there will still be a long road to travel; and the most difficult part will be to discover a practical means of imparting this salutary composition to all the numerous varieties of malarious soils.

Scientifically, then, in the present state of our knowledge, we are unable to affirm anything on this point. Practically, we are not much further advanced. It is very probable that the combination of hydraulic purification with a forced cultivation of the soil has sometimes determined changes in its composition by which it has been rendered sterile as regards malaria. If that has happened, it has happened by chance, and we are unable to produce the result at will; for we have not all the data which might enable us to understand how it has come about. Most of the purifications obtained in ancient times, by means of forced cultivation, continued during centuries, have not been definite at all, but the production of malaria has been simply suspended. Hardly was the regular cultivation of the fields interrupted than the production of malaria recommenced. Among the numerous examples that I might cite in this connection, I will limit myself to that of the Roman Campagna. This seemed to have been made permanently healthy under the Antonii, but after the fall of the empire it began again to produce malaria, as if the forced cultivation through so many centuries had never existed.

One might, strictly speaking, be content with such a result, and boldly undertake forced cultivation of all malarious districts, without stopping to ascertain whether the freedom from malaria so obtained would be definite, or whether the production of the poison were only suspended. Unfortunately, one is never sure of arriving at such a result, and no one can say *à priori* whether the forced cultivation of a given malarious tract will render it healthful. It must always be remembered that the first effect of forced cultivation, which requires an overturning of the soil by means of the plow, the spade and the pick, is an unfortunate one, from a hygienic point of view, whenever we have to deal with a malarious country. Experience has shown, especially in Italy and America, that this overturning of the soil almost invariably increases the local production of malaria. And this can be readily understood, since the plowing and the digging in a soil containing the specific ferment increases the extent of surface of the ground in immediate contact with the atmosphere. This first mischievous effect is often gradually weakened by the continued cultivation, and may end by disappearing. At other times, on the contrary, it persists obstinately, and one is often forced in desperation to the resolve to level the ground again and to varnish it, so to speak, with thick sowing of grass, if one wishes to spend or weaken the malarial production.

However, when the local conditions will permit, it is well to try whether, by means of forced cultivation of the soil, it may not be possible to increase the efficacy of the hydraulic method of procuring immunity from malaria, or of the hydraulico-atmospheric method of "overlaying." The moment that it is known that this cultivation has frequently been advantageous, there comes forward a crowd of social reasons which induce us to attempt it, even though we are persuaded that we are about to engage in a game of chance. But to dare to

attempt it is not all that is necessary; we need also the possibility of so doing, and just here we find ourselves in a vicious circle from which it is not easy to emerge. Forced cultivation cannot be accomplished without the presence of agriculturists in the region during the entire year; and the agriculturists cannot remain in the region during the fever season, for they run thereby too great a risk. For the solution of this question there is but one means: *try to increase the power of resistance of the human organism to the attacks of malaria.* It is to a search after the means of accomplishing this result that I have devoted myself during the past few years.

There is nothing to hope for as regards malaria, in acclimatization. *Individual acclimatization* is, and always has been, impossible. The malarial infection is not one of those a first attack of which confers immunity from other attacks. It is, on the contrary, a progressive infection, the duration of which is indeterminate, and which is of such a nature that a single attack may suffice to ruin the constitution for life. Collective or *racial acclimatization* certainly existed in the past, at a time when specific remedies for pernicious malaria were unknown; and even later, when the employment of these remedies was very limited. The acclimatization was due to a natural selection made by the malaria upon successive generations, from which it took away, almost without opposition, all those who possessed but a feeble individual power of resistance to the specific poison, while it spared those who possessed this power of resistance in an extraordinary degree. The first were, according to the Grecian myth, *the human victims destined to appease the monster, or demon, who opposed the violation of the territory over which he had up to that time exercised an absolute sovereignty* The second became the founders of the race, and through them, from generation to generation, the collective power of resistance to the malaria was progressively increased. In our own days a like selection may take place among barbarous races, as it does among the cattle and the horses in a malarious region, but it has become an impossibility among civilized nations. By means of the specific remedies which we possess, the use of which is now so general, the lives of a large number of individuals whose resisting powers are very feeble are preserved; and these individuals beget others whose power of resistance to the action of the specific poison is still more feeble. This results, after a number of generations, in the physical degradation of that part of the human race which inhabits malarious countries.

We cannot, therefore, in the future, count upon the assistance of external natural forces to increase the power of resistance of human society against the assaults of malaria. Such an object can be obtained only by artificial means. It has been sought to attain this end by the daily administration of the salts of quinine, of the salicylates, and of the tincture of eucalyptus, each and every one tried in turn. But the salts of quinine are dear, exercise a prompt, though transient, anti-malarial action, and, when administered for a long time, disturb rather seriously the functions of the digestive and nervous systems. The salicylates, when well prepared, are rather dear, and there is as yet no proof that they possess prophylactic powers against malaria. The alcoholic tincture of eucalyptus is useful in malarious regions (as are all the alcohols, beginning with wine) in quickening the circulation of the blood; may it, perhaps, also act as a preservative against light attacks of malaria? Possibly. But it is very certain that it possesses no efficacy in places where malaria is severe. It will suffice to prove this to recall the two epidemics of fever which afflicted the colony of the Tre Fontane, near Rome, in 1880 and 1882. Everybody was attacked, and there were several cases of pernicious fever, although a good preparation of eucalyptus is manufactured in the place and is distributed largely to the colonists during the dangerous season of the year.

Having several times had occasion to observe, in malarious regions, that when recourse was had to arsenic in order to subdue fevers, over which quinine had exerted almost no effect, relapses occurred but rarely; and having been able to satisfy myself that the arsenical treatment sometimes procured a permanent immunity in individuals who are subject to frequent attacks of malaria, I began in 1880 to employ arsenic (arsenious acid) as a prophylactic in certain portions of the Roman Campagna. This remedy was indicated, in an experiment of this sort, not only by reason of its durable anti-malarial effects, but also by its

low price, by the beneficial influence which it exerts upon all the nutritive functions, and because it has no disagreeable taste and may therefore be given to everybody, even to children. My first trials in 1880 were rather encouraging, and I felt myself justified in engaging some proprietors and the association of our southern railroads to repeat the experiment on a large scale the following year, recommending them, however, to use arsenic in a solid form as offering an easy and certain dosage. This extensive prophylactic experiment began in 1881, and acquired constantly increasing proportions in 1882 and 1883, which have become still larger this year. An experiment of this kind is not easy to conduct in the beginning. The name, arsenic, frightens not only those whom we desire to submit to its action, but also the physicians, whose exaggerated fears have sometimes rendered the experiments of no avail, since they were conducted too timidly and the doses of arsenic employed were altogether insufficient. But some intelligent men, especially M. Ricchi, physician-in-chief to the southern railroads, were able speedily to triumph over these obstacles, and to place the experiment on a firm basis. The general testimony of all the facts which they have collected tends really to prove that, when the administration of arsenic is begun some weeks before the presumed season for the appearance of the fever, and when it is continued regularly throughout the whole of this season, the power of resistance of the human organism to malaria is increased. Many individuals gained thereby a complete immunity, others a partial immunity, that is to say, they were sometimes attacked by the fever, but it never, even in very malarious districts, assumed a pernicious form, and was easily subdued by very moderate doses of quinine. Last year, for example, in the district of Borino, where the malaria is very severe, M. Ricchi experimented upon seventy-eight employés of the southern railroads, dividing them into two equal divisions, one of which received no prophylactic treatment, while the other was submitted to a systematic arsenical treatment. At the end of the fever season it was found that several employés among the first half had been attacked by fevers of a severe type; while thirty-six of those in the second division had enjoyed a complete immunity, the three others having been attacked, but so lightly that they cured themselves by quinine without seeking medical aid.

Facts of this sort are very encouraging, and the more so as the general health of those submitted to the prophylactic treatment was much improved. It was found almost invariably, upon the termination of the experimeut, that there had been an increase in bodily weight and an amelioration of the anæmia which is so common in malarious districts. But, in order to arrive at such results, it is necessary to be at once bold and prudent. On the one hand it is necessary to graduate very carefully the daily dose, never exceeding at the commencement the dose of two milligrammes ($\frac{3}{100}$ grain) per diem for adults, and never giving the arsenic upon an empty stomach. On the other hand, it is necessary to gradually push the dose up to ten or twelve milligrammes ($\frac{15}{100}$ or $\frac{18}{100}$ grain) a day for adults, in districts where the malaria is very severe, giving the arsenic in such a way that there is never an accumulation of the drug in the stomach. Most of the experiments which have been undertaken this year are being conducted on this plan, and there is reason to hope that they will give satisfactory results.

We must not, however, rest here if we wish to attain promptly the end proposed, namely, that of planting colonies in malarious districts without exposing the colonists to grave danger. Even if we realize perfectly the hope which I conceived in 1880, and if we are enabled to prove that arsenic increases man's power of resistance to the assaults of malaria, we must not imagine that everything is accomplished. It will take a long time before the use of a preservative method of this kind becomes generalized; we have first to contend against the fear which nearly everyone experiences when arsenic is mentioned, and then there will also be difficulty in establishing everywhere a proper control over its administration. In every attempt at the colonisation of malarious regions it will be necessary to combat for a long time the diseases caused by malaria, and we must seek for a method of combating them by a means which is in the possession of everybody, and which shall not be dangerous to the general economy of the human organism. Those who do not know from actual experience the miseries of a malarious country, think

only of combating the acute forms of infection, which often place the patient in danger of death. But this danger, though great, is for the most part imaginary, provided that assistance be obtained in time. But that which desolates families, and which causes a physical degradation of the human race exposed to the attack of malaria, is the chronic poisoning, which undermines the springs of life and produces a slow but progressive anæmia. This infection often resists all human therapeutic measures, and is even aggravated by the use of quinine, which is given during the recurrent paroxysms of fever. Quinine is, when given for a long period of time, a true poison to the vaso-motor nerves. The question, then, is to replace quinine and the alkaloids which possess an analogous physiological action, by an agent the efficacy of which against chronic malarial poisoning may be greater and the dangers of its employment less.

A happy chance has led Dr. Magliori to the discovery of an agent of this sort, which was traditionally in use by certain Italian families. It is an exceedingly simple thing —merely a decoction of lemon. It is prepared by cutting up one lemon, peel and all, into thin slices, which are then put into three glassfuls of water and the whole boiled down to one glassful. It is then strained through linen, squeezing the remains of the boiled lemon, and set aside for some hours to cool. The whole amount of the liquid is then taken fasting. It is well known that in Italy, Greece and North Africa, they often use lemon juice, or a decoction of lemon seeds, as a remedy in malarial fevers of moderate intensity; and in Guadaloupe they use for the same purpose a decoction of the bark of the roots of the lemon tree. All these popular practices tend to show that the lemon tree produces a febrifuge substance, which resides in all parts of the plants, but which would seem to be most abundant in the fruit. In fact, among the popular remedies employed against malarial infection, that which I have just described is the most efficacious, for it can be employed with good effects in acute fevers. But it is especially advantageous in combating the chronic infection, which is rebellious to the action of quinine, and in removing or moderating its deplorable effects.

Hardly had I learned of this method of medication, when I hastened to induce some proprietors in the Roman Campagna to try it with their farm hands; and, after witnessing the good results there, I endeavored to persuade practitioners to make a trial of the same treatment. I was ridiculed a little at first, for they thought it rather singular that a professor should be trying to popularize an old woman's remedy. In reply to that I answered that practical medicine would not have existed had it not known how to treasure up from age to age the facts of popular experience; and I ventured to remark that had the Countess de Chinchon waited until methodical researches had been made into the physiological action of cinchona bark, before popularising the remedy, the use of which she had learned from the semi-barbarous Peruvians, in all probability humanity would still, as regards malaria, be dependent upon the medication practiced in the middle ages. Happily these arguments had the desired effect upon certain distinguished practitioners, some of whom, especially in Sicily and Tuscany, have already collected together a tolerably large number of very encouraging observations. One of them, Dr. Mascagni, of Avezzo, tried the remedy in his own person, and succeeded in promptly curing an obstinate malarial fever which had resisted the action of quinine.

Gentlemen, in dealing with malaria, we ought always to hold popular experience in high esteem, for we owe much to it. We owe to it the fact that we have been liberated from the paludal idea, and, furthermore, that we have learned that it is often better, instead of trying to prevent the importation, for the most part imaginary, of malaria from distant marshes, to suppress its production in the soil under our feet or in that immediately surrounding us. We owe to it the knowledge, which we now have, that malaria rises up into the atmosphere only to a limited height, so that by placing ourselves a little above this limit in order to eliminate the possibility of the malaria being carried up to us by oblique atmospheric currents, we are enabled to breathe an air which does not contain this ferment, or which contains it only in insignificant amounts; thus one may even sleep in the open air during the night in very unhealthy districts without running any risks. The knowledge of this fact has led some people of Greece, and the inhabitants

of the Pontine Marshes, to sleep in the open air on platforms raised on poles four or five metres (twelve to fifteen feet) in height. Some people in the Roman Campagna have built houses for themselves on the top of the ancient tombs, the walls of which are perpendicular; the American Indians fasten their hammocks as high up as possible to the trees of the malarious forests; and very recently the engineers of the Panama Railroad had little wooden huts built in the trees in order to procure safety against the terrible outbreak of malaria which occurred during the construction of that iron way. We owe, finally, to this popular experience the discovery of the specific action of quinine, and the consequent preservation of thousands and thousands of human lives. Why should we reject *à priori* and without investigation other useful data which it may yet present to our consideration? If we wish to make progress in this question of rendering malarious countries healthy, we must always hold before our eyes a double object: to find a means of prophylaxis which may be accessible to everybody; and at the same time, to find a means, equally within everybody's reach, to overcome chronic malarial poisoning and its evil consequences. Science is still too far behind to permit us to hope that we shall soon succeed in discovering this second means by purely scientific researches. We ought, therefore, to gather together with great care all the facts which point to the possibility of a solution of this problem, and if the measures to which these facts point seem to be incapable of doing harm, we ought to try them boldly, and not be restrained by a false idea of the dignity of science. The social importance of the problem is too great to allow of its solution being retarded by the fear that scientific men may be accused of having been outrun by the ignorant. True science has none of these puerile susceptibilities; on the contrary, it deems it an honor to be able to seize all the observations of fact, whoever may have been their first recorder, to put them to the crucial test of methodical experiment, and to convert them into a new stepping-stone on the march of human progress.

[*Concluded.*]

The profession in Tennessee want no law to regulate the practice of medicine in that State.

Society Reports.

PATHOLOGICAL SOCIETY OF PHILADELPHIA.

THURSDAY EVENING, SEPT. 25, 1884.

The President, JAMES TYSON, M. D., in the chair.

Dr. Guy Hindale exhibited a PHANTOM BRAIN.

The model is constructed in colossal proportions, and is intended to show the course of the fibres in the human brain and their relation to the several nuclei and the spinal cord. The preparation has been recently purchased for the Mütter Museum of the College of Physicians and was constructed by Buechi, of Berne, Switzerland, under the supervision of Prof. Alby.

The height is 125 cm.; its width, 70 cm. The cortex is dotted over with numerous corks, 2 cm. long, which are distributed in systematic order. The basal nuclei, of a much larger size, are seen in their appropriate places. The spinal cord, made up of ganglia and columns of wires of different colors is represented throughout a portion of the cervical region. These columns of the cord, of different colors to distinguish their function, lead to their appropriate ganglia, of corresponding color, or to the areas in the cortex which are marked by similarly colored corks. Taking first the anterior and lateral columns of the cord painted red, we can trace these motor fibres to the anterior and lower portion of the medulla, where they decussate, through the pons, to the internal capsule where, between the caudate nucleus of the corpus striatum and the optic thalamus, they radiate to the cortex. They are seen to come chiefly from the convolutions about the fissure of Rolando. Where red balls are seen, from that point a red, motor, fibre descends to the anterior or lateral columns. It will be seen that the column of Türck, or direct pyramidaltract is in relation with the posterior part of the lateral column of the opposite side. As regards the exact localization of the sensory and motor tracts of the spinal cord there is still some discrepancy of opinion. Prof. Ferrier states that the anterolateral columns are usually regarded as the chief motor paths, but quotes the recent and careful experiments of Ludwig and Woroschiloff (1874), who place the motor paths in the lateral columns only. The

anterior columns (of Türck) are regarded more as commissural connections between the motor nerves and adjacent segments and not at least the direct paths of motor impulses proceeding from the brain.

Tracing the fibres of the posterior columns, colored blue, we find them represented as wholly decussating in the medulla, forming the posterior third of the internal capsule and passing to the corpora quadrigemina and optic thalami, colored blue, which are the great centres of sensation.

The external portion of the lateral columns, colored green, are seen to lead to the cerebellum decussating near its superior surface. The yellow fibres of the model place the basal nuclei in communication with the cortex; the white fibres, constituting the corpus callosum, are purely commissural. The columns of the cord, as represented in the model, correspond precisely with the arrangement given by Flechsig and endorsed by Charcot and Hammond. Ludwig and Woroschiloff* argue that "a vicarious interchange of function potentially exists between different parts of the cord." Ferrier admits that, in determining the course of the cerebral fibres, anatomy reveals very little and that physiological experiment is practically the only means at our command. Many more observations and experiments will have to be made before it can be said that the sensory and motor paths have been exactly defined and all views reconciled.

A case of Infantile Mollities Ossium, presented by Dr. Charles Meigs Wilson, for Mr. Clinton Dent, of St. George's Hospital, London. This specimen was sent to me by Mr. Dent, the well-known editor of the English edition Billroth's Notes on Clinical Surgery. The following history was also furnished by Mr. Dent. "This specimen shows the inner vertical half of the right femur of a child aet. 16 months. There is a pseudo-fracture of the bone. The medullary canal is filled up, and a considerable deposit of enveloping callus maintains the fragments in apposition. The entire bone is unnaturally soft, and in the recent state showed this peculiarity still more strongly. The bone was removed *post mortem* from the body of the feeble, ill-nourished child. No history of syphilis could be gotten from the parents, and the child showed no evidence of congenital syphilis. Some of the ordinary symptoms of rickets were observable, *e. g.*, bending of the ribs, general tenderness, enlargement of the wrists, etc. No symptoms of scurvy were present. It was evident that there was much more than rickets in this condition. When the child was first admitted to the hospital there were pseudo-fractures of the right humerus and left tibia, besides the fracture of the right femur.

The humerus, which was bent at a right angle, was forcibly straightened. It bent like a bar of soft metal, and remained in the new position, however in a light pasteboard splint. Snbsequently with the removal of the splint the bone again gradually bent and was again forcibly straightened. While in the hospital under observation the femora became affected in the usual place, *i. e.*, a little below the trochanters. Some swelling and tenderness was noticed, and then, although the child was kept constantly in bed, the bones became bent; ultimately, in about ten days, the pseudo-fractures became complete. Great improvement of general health, as evidenced by rapid increase of weight, resulted from treatment by rest, good diet, and cod liver oil. The child finally died from an attack of whooping cough after having been under observation a few weeks."

This is a very rare form of bone disease, especially in the young. It is seen occasionally in England—never with us. The pathological changes seem to be of a retrograde character. Sometimes lipomatosis takes place; sometimes there is a metamorphosis first to cartilage and then to embryonic tissue. This specimen shows, in different portions, both changes. The disease is attended with marked fatality. In this specimen the cortical substance is attenuated, and the medullary cavity is enormously enlarged. The bone seems deficient in lime salts. Some authorities believe that the lactic acid found in the chemical analysis of such bones is accountable for this. This fact is mentioned in order to elicit discussion. Other observers have found enormous quantities of oxalate of lime in the urine of patients with malacosteon bones. One curious fact is the effort which nature makes to repair the fractures, as shown in this specimen. This callus seems deficient in inorganic matter and eventually becomes reabsorbed. Sy-

* Ferrier. Functions of the Brain, page 5, London, 1876.

philis, scrofula and scorbutus have all been assigned as causes of the affection. Most authorities deny the existence of the disease in children, assign it to middle life, and speak of it as being lighted up or aggravated in women by pregnancy.

Hospital Reports.

REPORT OF A FEW INTERESTING CASES FROM THE EYE AND EAR CLINIC OF THE UNIVERSITY OF MARYLAND.

BY GEO. A. FLEMING, M. D., PHYSICIAN IN CHARGE.

Trichiasis.—Mary B., æt. 30, a housemaid, complained of a continual irritation of both eyes by wild hairs for four years. She had been going to the hospital twice a week throughout that period to have them pulled out, and seemed to have lost all hope of ever having any comfort again. On examination I found a number of inturned eyelashes, and on the inner surface of each upper lid the scars of an old granular conjunctivitis. As a result of all these, she had pannus, or a haziness of the cornea with vessels running over its surface, while the anterior layers of the cornea were more or less infiltrated with plastic material. The prognosis was not very favorable, but I decided to try the effect of hot water on the case. After removing all the wild hairs then visible, I ordered her to apply a simple astringent solution of zinci sulphas, three grains; morphiæ sulphas, one grain; aquæ dest. ℥i, three times a day, and to bathe her eyes in water as hot as could be borne every three or four hours during the day.

Internally, on account of her anæmic appearance, pills consisting of sulphate of iron, sulphate of quinine, each one grain, and extract of nux vomica, one-third grain, one to be taken after each meal. Under this treatment her condition began immediately to improve, and at this date, six weeks from her admission, she is almost well. I now remove, on an average, one hair a week, instead of a dozen twice a week as formerly, while the cornea is growing brighter every day, all the vascularity having disappeared and only a slight haziness remaining. In all cases of chronic granular conjunctivitis, with its characteristic trachomatous granules, when there is not much inflammatory action present, hot water is often beneficial, and may be curable. Its frequent application arouses a certain amount of irritation, with swelling of the conjunctiva and a softening of the trachomatous masses, which tends to hasten their absorption.

By this treatment we do away with the cicatricial contraction so often caused by the application of caustics, and the consequent unfortunate results, viz., pannus, entropion and trichiasis.

Piece of a Torpedo Box Imbedded in the Iris.—John B., a brakeman, æt. 45, gave a history of having been struck in his left eye by a piece of a torpedo box, over which his train ran while he was standing alongside attending to a switch. It had occurred just twenty-four hours before I saw him, and he had been almost wild with pain during that time, laudanum having no effect, although he took three tea-spoonfuls inside of six hours.

On examination I found great œdema of lids, with profuse lachrymation, and the anterior chamber filled with blood. The splinter could be seen perforating the cornea with its point imbedded in the iris, fortunately, just above the pupil and not in the ciliary region as I feared.

After getting him under the influence of chloroform I attempted to withdraw it, when I found that I would have to enlarge the corneal wound with my lancet and cut off a piece of the iris which was entangled on the end of the body. I pushed back the iris from the wound and ordered a solution of atropiæ sulphas, four grains; aquæ, one ounce, to be dropped into the eye every two hours, and iced cloths to be applied continuously. This treatment was carried out for three weeks, and to-day he has perfect vision in the eye, and the only sign of the accident is a slight irregularity of the pupil and a faint corneal scar above the pupil, and not interfering with his sight in the least.

Ophthalmia Neonatorum.—Numerous cases of this trouble are brought to the hospital whose history is generally as follows: About two days after the birth of the baby we noticed a thin watery discharge from the eyes and redness of the eyeball, for which the *nurse* usually orders breast milk or chamomile tea, and in many cases she tells them not to think of separ-

ating the lids for fear of increasing the inflammation—a most serious mistake. About two weeks after this the baby is brought to us with tense swelling of the lids, chemosis and great pain, with a discharge of purulent matter.

If untreated, the cornea is in danger from two causes, viz.: (1) Strangulation of the vessels from pressurse, and (2) the influence of the discharge. Prompt and vigorous treatment is required. The discharge should be frequently and thoroughly removed with warm water and a soft sponge or rag, and once a day a solution of argent. nitras, grains five; aquæ destil., ʒi, should be instilled into the eyes; while every two hours, after cleaning, a few drops of a solution of zinci sulphas, one grain, aquæ dest., ʒi, should be dropped between the lids. Repeat the solutions less frequently as the discharge diminishes. In cases where the lids are so swollen that nothing can be applied to their conjunctival surfaces, the outer canthus can easily be divided. If promptly attacked, it is easily cured, but the mother must be cautioned to give it her undivided attention night and day. If this plan of treatment is strictly carried out, a considerable improvement will be quickly noticed in the baby's eyes. Within three or four days the little patient will begin to open them, and bear exposure to the light; the swelling of the lids and congestion of the conjunctiva will diminish, and we may then substitute the zinc. drops for the nitrate of silver solution, using them five times a day. If the cornea is involved in the inflammation, sulphate of atropia in the strength of two grains to the ounce of rose-water should be dropped into the eye every three hours, and cold cloths applied constantly over the lids. For opening the lids to examine the condition of the cornea, I find a hair-pin bent in the shape of a button-hook very useful when the regular lid retractor is not at hand.

With this treatment, when there has been no perforation of the cornea, before you commence, a cure can be guaranteed in every case, which is certainly very gratifying to the physician, for at least three-fourths of the blind people in this country have lost their eyesight from this disease, *improperly treated.*

Ceruminous Deposit.—John T., æt. 60, a mechanic, complained of deafness and roaring sounds in both ears for five years, from which he had been unable to get relief. This may come from three causes, viz., (1) Trouble in the external ear, which extends as far as the drum membrane; (2) trouble in the middle ear, extending from the drum membrane to the labyrinth and connected with the throat by the Eustachian tubes. In this cavity we find diseases induced by throat inflammation and catarrhal troubles; (3) in the inner ear, including troubles of the labyrinth and auditory nerve.

Upon examination with speculum and reflector, I found the drum membrane hidden from view by a mass of inspissated wax clogging the external meatus. I therefore injected about fifty syringefulls of warm water, without seemingly having any effect on the mass. Many physicians would have then tried to loosen it by means of an ear-spoon or probe, possibly injuring the ear by perforating the drum membrane and causing the patient to suffer severely. I ordered a solution of sodæ bicarb., one scruple to aquæ one ounce, and told him to fill both ears with the drops, after warming them, at night; insert a wad of cotton afterwards and to return the next day. He did so, and the first syringefull of water the next day brought away a mass of old wax impaction, which after years of accumulation and desiccation had formed a stone-like mould of the meatus from the drum membrane outwards. He experienced immediate relief, and with the exception of a slight buzzing, in damp weather, he is as well as ever. He can hear my watch at ten inches, while before he could not hear it at contact.

Strabismus.—Mary C., æt. 12, gave a history of having become cross-eyed three months before admission, at which time she had been reading and knitting a great deal, especially at night.

On examination I found her vision good in both eyes, but the ophthalmoscope showed a slight hypermetropic reflex, and the squint being slight and of recent date, I decided to try the effect of mild convex glasses for a season. I ordered ♁ + glasses to be worn continually for two months, and to-day, six weeks from admission, I told her she could lay aside her glasses as the squint had entirely disappeared, and glasses were not needed. This trouble is very common, especially among school children, when it

is usually caused by hypermetropia. In this condition the patient is obliged to use his or her accommodation in order to see even distant objects. Now accommodation is always accompanied by convergence, and when a near object has to be seen the accommodation, and, consequently, the convergence used, are so great that the eyes deviate internal to the visual line, so that the image does not fall upon the yellow spot and is therefore not distinct. The patient then fixes one eye upon the object making it move in the direction of the visual line, whilst the other eye still deviates. The amount of deviation can be measured by the distance between two vertical lines, one bisecting the pupil, and the other bisecting the eyelids. To diagnose these cases, let the patient look steadily at the top of your index finger, placed about a foot in front of their eyes; then screen each eye successively by a card, and watch the eye thus screened. The squinting eye makes a decided movement toward the visual line when the working eye is covered, but the working eye remains quite stationary when the squinting is screened. The treatment is either of two things: (1) If the patient be hypermetropic, if squint be slight and of recent date, and if vision be good in both eyes, try the effect of well fitting convex spectacles for one or two months; (2) perform tenotomy of the internal rectus muscle of one or both eyes. This operation, which is generally looked upon as a very difficult one, is really very simple. After separating the lids by a stop-speculum, pinch up a fold of the conjunctiva with toothed forceps between the cornea and caruncle, and then with sharp-pointed scissors cut through this and through the capsule of Tenon, pass a squint-hook beneath the tendon from below and cut it through between hook and globe. Pass in the squint-hook a second time to be quite sure that the tendon is divided.

Correspondence.

DR. MORRIS H. HENRY ON HIGHER MEDICAL EDUCATION.

To the Editor of the Md. Med. Journal:

New York, Sept. 27, 1884.

Dear Sir—My attention has just been called to an editorial with the above title, published in your issue of September 6th, 1884.

I am averse, on general principles, to take exceptions to any criticisms of my professional course published in medical journals and presumably in good faith. The article cited, however, goes so far beyond the limits of fair criticism—treats so flippantly the great social problem of scientific advancement and respectability in the profession of medicine in this country—and reflects so falsely on the integrity of those who toil in the great cause, that I am impelled to ask space in your columns to put in an answer in defence of the best work that can possibly enlist the attention of the best men in the profession. The article commences:

"Dr. Morris H. Henry's speech on this subject at the late meeting of the American Medical Association was dramatic in a high degree, as those who heard it will admit; we will grant that it was even eloquent and effective. None approved of its sentiments in favor of a higher educational standard more than we. But with all that it seems to us to have been rather a superfluous ebullition of words for which there was no occasion."

There were nearly sixteen hundred members present at this same meeting of the Association—the largest number ever gathered together since its foundation—and I say it with pardonable pride and satisfaction—that no remarks, having once secured the floor—were ever listened to with more profound attention or kindly consideration. You also state:

"Dr. Henry's speech seems to us to be commendable neither in point of taste, of justice, nor of necessity."

That speech secured the adoption of the resolutions by an almost unanimous vote. The applause and personal greetings that followed left no room to doubt the earnestness and sincerity of those who assisted in what you are pleased to term this "fiery harangue." That great body of conservative, educated, stalwart men attested by their votes their appreciation of the necessity of a higher standard of education in our medical schools and a preliminary examination and test of fitness of the candidates before admission as alumni of our medical colleges. The Association is made up of elements not easily led astray by a "superfluous ebullition of words" or a

"speech commendable neither in point of taste, of justice, nor of necessity."

And now let me say a few words in response to the personal part of your attack. You say:

"It savors much of demagoguery to see one taking advantage of a favorable moment to ventilate himself upon what he knows must be a popular side. Such clamorous orators would doubtless be quickly quieted by the offer of a chair in some of the institutions which they abuse with such violence."

If a sincere advocacy of a higher standard of character and culture in my profession before the greatest tribune of my *confreres* in this country constitutes demagoguery I am guilty of it. The questionable taste and integrity of purpose in applying such a term to any one in an honest effort—such as mine was—I will leave your own readers to decide. You are guilty of an egregious error if you imagine, for a moment, that I could be swayed from my purpose by the offer of any chair, in any school, that disposes of diplomas to persons who are ill-educated and unfit for the honorable and scientific calling of a practitioner of medicine. My whole professional career—covering now a period of twenty-five years of official and private practice—flatly contradicts any such imputation. I am now devoting myself exclusively to private practice, employing my leisure, and such other time as I can possibly spare, to the cause of a "higher educational standard."

MORRIS H. HENRY.
581 Fifth Avenue.

(We have not the honor of a personal acquaintance with Dr. Henry, having never seen him except on the one occasion referred to in our editorial to which he allŭdes. Therefore we cannot be justly charged with personal motives in our criticism of his speech. We do not think that we exceeded the limits of "fair criticism;" certainly if we did we may cite his example as an incentive, for in the report of his speech he charges those who differed from him with having "private axes to grind." (See *The Medical Bulletin*, July, 1884, p. 155). It is not in reference to the advocacy of a "higher medical education" that we differ from Dr. Henry, and in our humble sphere we might perhaps point to efforts that evince as earnest a desire to elevate the standard as Dr. Henry's speech before a great audience of "nearly 1600" did. It is in regard to Dr. H.'s manner of advocacy that we entertain disapproval, and we will not repeat the reasons already given for this. His wholesale denunciation of the schools, his utter ignoring of many honest efforts on their part at improvement, notwithstanding limited resources and great obstacles, places him, in our view in the attitude of a partisan who can see but one side of the question and renders him liable to the charge of gross injustice. The fact is that the advances made in medical instruction in this country of late years—such as the three year graded course, and the preliminary examination—have been the voluntary acts of the colleges themselves uninfluenced by the profession. Many examples might be cited. The time and circumstances of Dr. H.'s speech certainly "savored strongly of demagoguery." Whether it is probable that Dr. Henry could be induced to accept a chair in the University of Pennsylvania, Jefferson Medical College, Bellevue Hospital Medical College, or other of the medical institutions of the metropolis, all of which seem to come under his ban, we must leave to the conjecture of our readers.—Eds.).

Editorial.

Antiseptics in Laparotomy.—Considerable difference of opinion prevails in reference to the use of antiseptics in abdominal surgery. A few surgeons have discarded the spray and the use of antiseptic solutions, and rely entirely upon pure water. Mr. Tait is an example of this class. His results are claimed to be better without than with the use of antiseptics. This question of the use of antiseptics in connection with abdominal surgery resolves itself into one of individual opinion, for both Tait and Keith have shown that it is not essential to their success.

In a paper read before the Section on Obstetrics and Gynecology, at the late meeting of the International Medical Congress (*Brit. Med. Journ.*, Sept. 20) Prof. Mikulicz, of Cracow, argued in favor of the necessity of antiseptics in laparotomy, as well as in all other operations attended with a loss of blood. He contended that the principles of the use of antiseptics in this operation were the same as in other

great operations, but the details differed essentially in some points. The peculiarities of the peritoneum in some respects favored, and in other respects impeded, the application of antiseptics. The most important properties of the peritoneum having an influence on antisepsis were, first, the great extent of surface, which was a source of danger of cooling on exposure, of rapidly spreading inflammatory and septic processes, etc.; secondly, its great power of absorption and exudation, and thirdly, the liability to pour out plastic exudations, and rapidly to form firm adhesions; in this way foci of inflammation might be localized, and ligatures and separated masses of tissue encapsulated. Prof. Mikulicz called attention to the following points regarding the use of antiseptics in laparotomy: 1. The peritoneum was more easily affected by septic infective matters than any other tissue, but it was not possible to use very active antiseptic measures as the danger of poisoning by the antiseptic was very great on account of rapid absorption. He held that the chief point to be attended to in antisepsis during laparotomy was the absolute withholding of septic material from the peritoneum. In laparotomy, antisepsis was pre-eminently prophylactic. It was important to cleanse and disinfect everything to be used, or which had any relation to the operation. The spray was considered superfluous in faultlessly clean rooms; but, in hospitals, it should be used for half an hour to an hour before the operation, for the mechanical purification of the air. During the operation it was useless. In operations on the stomach and intestines absolute prevention of the escape of the gastric or intestinal contents was one of the most important points in antisepsis. Drainage of the peritoneum was considered nearly always quite superfluous in operations performed aseptically and hence was permissible in laparotomy only in rare and exceptional cases. 2. Besides direct infection during the operation, spontaneous infection might occur from collections of secretions of the peritoneal cavity. Hence the second great principle of antisepsis in laparotomy was to prevent this secretion. An accurate "toilet of the peritoneum" was of the first importance; next came the prevention of secreting wound-surfaces in the peritoneum, by the use of the ligature, cautery and suture.

Everything should be avoided which might excite the peritoneum to secretion, e.g. irritation by strong antiseptics. To favor absorption, a compresssive bandage over the whole abdomen was suggested. The pedicle might be treated either extraperitoneally or intraperitoneally, so long as the abdominal cavity was perfectly closed. The manner in which the sutures were applied to the abdomen had no influence, provided the surfaces of the peritoneum were properly united.

The views expressed by Prof. Mikulicz are both conservative and judicious, and offer an excellent guide to practice.

Prof. Karl Braun's Operative Methods in Laparotomy.—A brief review of the operative technique of Karl Braun, of the Lying-in Department of the Vienna General Hospital, appears in the *Wiener Medizinische Wochenschrift*, No. 30, July 26, 1884.

The antiseptic precautions are strict.

The room is prepared by a thorough cleansing and fumigation with sulphur, followed by a free ventilation, a moderate temperature being maintained. One hour before operating it is filled with the vapor of carbolic acid by means of a steam atomizer, after which the atomizer is no longer used.

The operator and his assistants are required to wear clean clothes, and their hands and forearms are disinfected by means of one of the efficient disinfectants. The instruments, after being passed through a flame, are also disinfected with carbolic acid. The sponges and linen used have lain for weeks in a five per cent. solution of the same disinfectant, and just before use are treated with a warm aqueous solution of thymol 1 to 1,000.

The patient is prepared by a bath and gentle purge administered the day previous. She is ætherized in an ante-room; her skin and vagina washed and disinfected with a five per cent. carbolic acid solution; warm compresses are placed over her abdomen, and these covered with a caoutchouc cloth having a long central slit; the extremities are enveloped in flannels.

The fluid contents of cysts and cystomata are removed by a trochar and the wall of the emptied cyst irrigated with lukewarm thymol water. The cyst is then drawn through the abdominal wound. Adhesions when slight are torn through by the index

finger. While in cases of intra-ligamentous cystoma with mesocolon and intestinal adhesions he considers it best to cut through the mesentery, and by working with the fingers between it and the cyst wall to attempt enucleation. When adhesions of three per cent. extent exist between the cyst wall and the colon he advises that a portion of the former be cut out and allowed to remain attached, thus preventing a rupture of the intestinal canal.

In cases of ovarian cystomata the pedicle is treated by clamp compression, ligatured below and cauterized with the thermo-cautery above the clamp, the ligature used being strong silk.

If the cauterized pedicle after being allowed to cool is found to be perfectly bloodless it is returned into the abdominal cavity. The division of thick omentum and tubes when necessary is by the same procedure. In cases where the adhesion of a cystomata cannot be divided, the growth is partially excised and the remainder of the sac is sewed into the abdominal incision and drained.

After enucleation the folds of the broad ligament and mesocolon are brought into exact apposition and held by deep sutures.

When intra-ligamentous cystomata cannot be removed from the uterus they must be amputated and treated by the extra-peritoneal method.

The operative procedure in cases of solid uterine tumors is identical with Porro's observation.

In pedunculated tumors the pedicle is ligatured with a rubber cord and compressed with Leiter's wire ecraseur, and the stump cauterized. It is then treated by the extra-peritoneal method, being held in place by long needles being passed through it. In cases of solid uterine tumors attached by a broad base, the base is compressed and local anæmia produced. A circular incision made at the greatest circumference of the tumor divides it completely and removes one-half. The remaining half is enucleated from its capsule, and the latter forming the pedicle is treated extra-peritoneally. In this day both ovaries and uterus may be preserved.

The pedicles of ovarian tumors are usually returned to the abdominal cavity, while the stumps in cases of myomotomy and myophysterectomy are treated by the extra-peritoneal method.

Parenchymatous hæmorrhage of the peritoneum is controlled by light touches of the thermo-cautery. Every bleeding vessel is tied with a silk ligature. At the close of the operation the abdominal cavity is cleansed with great care, and all air is carefully pressed out.

In applying the sutures care is taken that the peritoneal surfaces be accurately brought together to the extent of one ctm., they being compressed in that position. The sutures used are of silk and silver wire held by shot and leaden plates. The dressing of the abdominal wound consists of a dusting of sodium benzoate, then a heavy Lister dressing of iodoform, carbolic acid gauze, absorbent cotton and Mackintosh is applied.

Miscellany.

Treatment of Wounds.—Discussion Before the Section on Surgery at the International Medical Congress.—On Thursday, August 14th, Prof. Trélat occupied the chair, Sir Joseph Lister, who had been confidently expected, not arriving. The discussion on wound treatment was opened by Prof. Esmarch. He enunciated his general principles and went at rather more length into his practical method. He stated that the majority of the vessels were tied with catgut before the removal of Esmarch's band, in some cases the dressing being also applied before loosening it. He laid stress on infrequent dressings, and stated that he was in the habit of not introducing drainage tubes, which necessitate dressing, but in their place he leaves larger gaps between the sutures at the dependent points. The principal antiseptic at present in use at Kiel is bichloride of mercury (1 in 1,000). The spray is used before and not during the operation, and the wound during the operation is washed with filtered distilled water, the sublimate solution being applied once only, immediately before the permanent dressing. The permanent dressing consists of bags of turf moss.

Prof. Mosetig Von Moorhof followed with a paper on the iodoform treatment of wounds. He stated that he was the only surgeon who used the pure iodoform treatment, all other surgeons employing other antiseptics at the same time. He uses spring or distilled water only, to wash the wound. The hand, instruments and the

neighborhood of the wound are disinfected with some fluid medium. He thought perhaps its antiseptic power was greater with living than dead tissue, and quoted Binz to the effect that when applied to a wound it checked the migration of leucocytes. He praised it as pain-stilling, and recommended iodoform gauze moistened with 1 part of glycerine and 2 of water as a dressing for burns. He also uses a solution in benzol mixed with vaseline, 1 part in 9 or 1 in 12 for similar cases. He affirmed its local action in turbercular granulations, cure being more permanent with less chance of recurrence than with other treatment. With regard to iodoform intoxication he had never seen it follow the pure iodoform dressing although he had made from 9 to 10,000 dressings: if it did occur it depended on the use of too much iodoform, or too frequent dressings, especially where much loose connective tissue exists, in other cases perhaps on renal disease. As to erysipelas he had never seen it except in the winter 1881-1882, and in that winter it abounded throughout Europe. He did not consider iodoform a better antiseptic than many others, but relatively it was more useful, especially for the poor doctor, the country doctor, and the army doctor, to all of whom its ease of application was a very great advantage, possessed by no other antiseptic at present in use. He had had 42 large amputations, of which 37 had healed per primam with one dressing.

Dr. Schede said that when at the Frederichshain Hospital in Berlin, he had never had any erysipelas or pyæmia, but when he came to Hamburg, he found that slight and severe cases of sepsis occurred, but no actual pyæmia, although he continued the same antiseptic practice he had carried out at Berlin. He therefore looked out for a new antiseptic, and chose iodoform; this he employed for one year. The results were unsatisfactory. Erysipelas increased in frequency (29 cases with 15 deaths in 13 months), pyæmia and septicæmia occurred, besides cases of iodoform intoxication. Iodoform was therefore discontinued, and bichloride of mercury substituted; since then he had seen no more septic cases, in fact the wounds had followed an ideal aseptic course. Statistics of a very favorable nature were given of 1,780 cases, including 229 large amputations, in which suppuration occurred 17 times, deaths 12, none septic; 170 large resections, 63 healed per primam, 8 deaths; 75 osteotomies, no deaths; 8 uterus extirpations, 1 death; 25 ovariotomies, no death; and many other series of operations. With regard to mercurial poisoning, he had lost one case, a very cachectic woman with mammary carcinoma; she showed signs after the first dressing, these receded to re-occur after the next dressing, and again on a third occasion after which she died. Diarrhœa, bloody stools and salivation were occasionally seen, but disappeared when the dressing was discontinued. He now uses the 1 in 1,000 solution only for disinfection of wounds inflicted some time before coming under the surgeon's hands, or septic wounds; for other cases a solution of 1 in 5,000. He finds this sufficient, and has had had no case of intoxication for 18 months. Children are very tolerant, and the whole body may be safely bathed in a solution of 1 in 1,000. No protective is used, but a small pad of glass wool soaked in 1 p. c. sublimate solution. Protective keeps the blood clot in the lips of the wound moist, and allows more chance of putrefaction. Over the glass wool, moss bags are applied, a soft, cheap and easily disinfected dressing, and the whole is fixed with a bandage, without macintosh. Sublimate catgut is used, and, if the surgeon likes, sublimate gauze instead of the moss.

Prof. Mikulicz strongly recommended iodoform plugs for operations about the mouth, nose, pharynx, vagina, or rectum. Iodoform was only of use as a permanent dressing, not for primary disinfection. His experience with regard to erysipelas differed from Dr. Schede's, he had only one case in 104. Thirty to fifty per cent. iodoform gauze was used, and separate drainage was not found necessary. He had seen iodoform intoxication, but rarely after large wounds; if symptoms occurred a weaker dressing must be applied or the iodoform discontinued.

Prof. Neudorfer spoke of the difficulty, for those who did not work in large hospitals, of keeping the sponges aseptic, and recommended their disuse. He thought blood serum underwent decomposition in the absence of any special ferment from without. The principles of wound treatment on which he worked were three. (1) The preservation of the wound from foreign organisms. (2) The prevention of putre-

faction. (3) The rapid advancement of the necessary changes in the blood serum, best attained by a supply of oxygen, such as is ensured by the use of peroxide of hydrogen.

Prof. Buchanan (Glasgow) spoke of Lister's first operations; Dr. Shelkly, of antiseptic practice in the colonies.

Prof. Koeberlé adverted to the difficulties of obtainining strict asepsis, which he thought unnecessary, and recommended the use of oxydising agents. Prof. Blom was in accord with his German colleagues, and spoke of the importance of cleanliness in the hands of the assistants.

Prof. Trélat closed the discussion with a statement of the general rules which guided him in wound treatment. (1) Complete apposition. (2) Removal of all foreign matter either mechanical or septic, here adverting to the difference in town and country practice, in regard to surroundings and consequent purity of atmosphere. (3) Preservation from external infection. (4) The use of antiseptic means, of what nature the surgeon liked if only effective. (5) Dressings to be as infrequent as possible. He followed the following plan:—(1) Irrigation of the wound with carbolic acid; or sublimate solutions. (2) Final disinfection before closing. He used antiseptic gauze, iodoform gauze for cavities, and elastic bands to fix the dressing when necessary.

Prof. Blom paid a tribute to the esteem in which Sir. J. Lister was held, and invited the section to rise as a body, to express their sense of the benefits conferred by him on science, the sick, on those present, and on all.

Jennings on Resuscitation of the Newly Born, and on the Treatment of Poisoning by Anæsthetics.—Mr. C. E. Jennings, in the *British Medical Journal*, April, 1884, p. 809, draws attention to the necessity of forcible traction on the tongue, as a preliminary to artificial respiration in the newly born, and also in cases of threatened death from anæsthetics. Mr. Jennings narrates a case where he was performing artificial respiration on an infant, when he noticed that the chest could not expand, since the air, immediately on entering the larynx, forced the epiglottis like a valve over the superior orifice of the organ. No one being near who could be trusted to hold the tip of the child's tongue, a darning-needle was threaded and passed through the tongue; forcible traction was then made on the loop of thread, whilst artificial respiration was recommenced. Animation was rapidly reproduced, vanishing on relaxation of the tongue, reappearing at once on the renewal of traction. If death appear imminent from causes other than laryngeal obstruction, only one method remains which can possibly avert dissolution—namely, the intravenous injection of fluid (medicated or otherwise), accompanied, under most circumstances, by simultaneous depletion.—*London Medical Record.*

Medical Items.

The Medical and Surgical Society has resumed its regular weekly meetings. The Baltimore Medical Association and the Baltimore Academy of Medicine will resume work during the present month. Dr. Lambert H. Ormsby, in the *Lancet* of July 26, 1884, relates the histories of several interesting cases illustrating acute traumatic malignancy in the osseous tissues.=Pruritus ani and the distressing itching of urticaria and mosquito bites can be relieved by local applications of menthol. The menthol pencil may be rubbed over the surface, or a small amount of the drug dissolved in alcohol and used as a lotion.—*Polyclinic.*=Dr. William Osler, of Montreal, Canada, has been elected professor of clinical medicine in the medical department of the University of Pennsylvania. He takes the place of Dr. William Pepper, transferred to the professorship of the theory and practice of medicine. Dr. Osler is a distinguished physician, lately connected with the McGill University at Montreal, and now President of the Canadian Medical Society. Dr. Horace Hoskins was elected demonstrator of veterinary anatomy, and Dr. Alexander Glass demonstrator of practical pharmacy in the veterinary department of the University.=Mr. John N. Radcliffe, M.R.C.S., a noted epidemiologist and the author of a number of painstaking reports upon epidemics, is dead.=Up to September 30th the total number of deaths from cholera in Europe was not far from 15,000; of these Italy has over 8,000; France about 6,000, and Spain 400.=The Clinical Society of Maryland began its regular series of meetings for the winter on

Friday, October 3rd. The following officers were elected for the ensuing year: *President*, B. B. Browne; *Vice-President*, Dr. R. B. Morison; *Recording and Reporting Secretary*, Dr. J. T. Smith; *Corresponding Secretary*, Dr. W. E. Moseley; *Treasurer*, Dr. H. C. McSherry. This Society has 154 members and is in a most active and healthy condition.=Dr. Heywood Smith and his son Dr. Protheroe Smith, two distinguished gynecologists of London, are on a visit to this country.=The *Philadelphia Med. Times* offers the following warning to bathers in Schuylkill river: "A boy who was recently bathing in the river Medlock, in Manchester, got out of his depth and swallowed some of the water, which was particularly filthy. Though immediately rescued by another lad, he expired shortly afterwards, death, it is stated, resulting not from drowning, but from poisoning.—*Lancet.*"=Two new books on the Practice of Medicine have been very recently given to the profession—one from the publishing house of Wm. Wood & Co., New York, by Alfred L. Loomis, M. D., LL.D., and the other from the publishing house of Jansen, McClurg & Co., Chicago, by N. S. Davis, A. M., M. D., LL.D.=Chicago has a Foating Hospital Association which has done excellent work during the past summer in accommodating infants and young children with their mothers and nurses. A boat was fitted up as a hospital, and was kept on the lake from July 7th to September 12th, a period of ten weeks. 21,489 persons were cared for during that time.=The Committee charged with the organization of the Ninth International Medical Congress, to be held at Washington in 1887, is composed of the following well-known gentlemen: Drs. Austin Flint, of New York; I. Minis Hayes, of Philadelphia; Lewis A. Sayre, of New York; Christopher Johnston, of Baltimore; George J. Engleman, of St. Louis; J. S. Browne, U. S. N., and J. S. Billings, of U. S. A.=The mortality of the globe, as given by a continental journal, which has made the computation, is as follows: Per minute, 67; per diem, 97,790, and per annum, 35,639,835; whereas the births are 36,792,000 per annum, and 100,000 per diem, and 70 per minute.=The *National Druggist* calls attention to some bad effects following the application of iodoform externally, and attributes them to adulteration with picric acid, which it says is largely used for that purpose. The subject is important, as iodoform has grown into extensive use.=Drs. Joseph A. White and Paul A. Carrington, graduates of the College of Physicians and Surgeons, Baltimore, class of 1883, passed first and second on the last examination for admission to the U. S. Marine Hospital Service.—*Medical Chronicle.*

Official List of Changes in the Stations and Duties of Officers Serving in the Medical Department, U. S. Army, from Sept. 30, 1884, to Oct. 6, 1884:

Clements, B. A., Major and Surgeon, in addition to present duties, to take charge of the office of the Medical Director of the Department during the temporary absence of that officer.

Bentley, Edwin, Major and Surgeon, granted two months leave of absence with permission to apply for two months extension, to take effect upon assignment to duty in Dept. of Texas of Surgeon F. L. Town.

Bartholf, John H., Captain and Assistant Surgeon, assigned to duty at Fort Ringgold, Texas, as Post Surgeon.

Cronkhite, Henry M., Captain and Assistant Surgeon, assigned to duty as Post Surgeon, Fort Reno, Ind. T.

Crampton, L. W., Captain and Assistant Surgeon, granted leave of absence for one month and ten days.

Gibson, A. J., First Lieutenant and Assistant Surgeon, assigned to duty as Post Surgeon, Fort Winfield Scott, Cal., relieving Assistant Surgeon A. S. Polhemus.

Polhemus, A. S., First Lieutenant and Assistant Surgeon, upon being relieved, to report to commanding officer, Fort McDermit, Nev., for duty as Post Surgeon.

White, R. H., Captain and Assistant Surgeon, to report to commanding officer, Angel Island, Cal., as Post Surgeon, relieving Assistant Surgeon C. K. Winne.

Winne, C. K., Captain and Assistant Surgeon, upon being relieved, to report to commanding officer, Benicia Barracks, Cal., for duty as Post Surgeon, relieving Surgeon C. C. Bryne.

Everts, Edward, First Lieutenant and Assistant Surgeon, granted leave of absence for one month, with permission to leave the limits of the Department.

Black, C. S., First Lieutenant and Assistant Surgeon, granted leave of absence for fifteen days, to take effect this date.

Original Papers.

INTRODUCTORY ADDRESS, DELIVERED BEFORE THE CLASS OF THE WOMAN'S MEDICAL COLLEGE OF BALTIMORE, OCTOBER 1, 1884.

BY RANDOLPH WINSLOW, A. M., M. D.,

Professor of Surgery, etc.

[*Continued from Page 465.*]

The lack of time forbids more than a mention of Rhazes, the learned physician, surgeon and author, a Persian by birth, who wrote no less than 220 treatises; of Haly Abbas, a compendious writer; of Avicenna, whose works became text books in the principal schools of Europe for a period of 600 years; of Albucasis, Avenzoar and Averrhoes, Spanish Moors, who lived and wrote in the 12th century.

The Arabians divided physic, pharmacy, and surgery, into distinct professions, thus forestalling the modern institution of specialism. To them we owe the introduction of chemical drugs, and many valuable additions to our materia medica. Small-pox and measles were first described by Rhazes, who also wrote the first treatise on the diseases of childhood. With the expulsion of the Moors from Spain, and the subjugation of the Saracens by the Turks, the light of science and knowledge was well nigh extinguished, and for three long centuries the whole world slumbered in ignorance and superstition. But whilst the effulgence of science had dwindled to a tiny flame it was not totally extinguished. At Salernum, in Italy, a medical school quietly evolved itself, and under the direction of the Benedictine monks reached the highest pinnacle of fame in the 12th and 13th centuries. It is certain that this school added but little to the advancement of medical knowledge, and produced no great or original men, but it has the distinction of having preserved the Grecian and Arabian doctrines during that dark period intervening between the decline of the Arabian school and the rennaisance of modern medicine. During this period all medical knowledge was in the hands of the monks, who, in order to strengthen their influence with the people, as well as to veil their ignorance, enshrouded the practice of medicine in the mantle of superstition and of religious chicanery. In the 13th century lived and worked Albertus Magnus in Germany, and Roger Bacon in England. They were men of science, and chemists, who cultivated their profession to such a high degree that they were regarded as magicians and sorcerers, and Bacon was several times thrown into prison upon this charge. It is to be regretted that the early scientists wasted their efforts in trying to discover the philosopher's stone, whereby the baser metals could be converted into gold, and the elixir vitæ, by which perennial youth could be ensured.

By the end of the 13th century medicine was taught in most of the European universities, the most popular of which were those of Italy and France. In the 14th century flourished John of Gaddesden, the first native English court physician, who in spite of his great egotism and pretention, was a man of ability and original thought. Guy de Chauliac in France systematized surgery at this time also, though he does not appear to have added much to the stock of previous knowledge. The art of printing was discovered in 1440, and with it the revival of arts, sciences, and letters, may be said to have begun. The mists of the ages began to be lifted, and the sunshine of revivified learning appeared upon the horizon. Although lithotomy had been successfully performed in the days of Hippocrates, it was never held in high esteem by the regular practitioners of medicine, but was left for performance to a class who made a specialty of it. About 1460, Ger main Colot having learned the art from the itinerant surgeons who practiced it, and having made repeated experiments upon the dead body, successfully performed the operation upon a condemned criminal, to whom liberty was promised if he survived. His patient was convalescent in 15 days, the reputation of the surgeon was established, and the operation became part and parcel of common surgical practice. Sylvius enriched anatomy by his discoveries during this century, and his name is immortalized in that cleft in the brain known as the fissure of Sylvius. He had also the honor of being the teacher of the immortal Vesalius, who soon outstripped his master, and became the most renowned anatomist in the history of the world. With the advent of the 16th century the era of modern medicine was well under way. It was a period of great intellectual activity. Fortunately

the study of anatomy was recognized as being the very foundation upon which the fabric of medicine must be erected; and the fame of the period rested eminently on an anatomical basis. In this century we find those great anatomists, Vesalius, Eustachius and Fallopius, to say nothing of others, diligently delving for truth in the inmost recesses of the human frame. A familiar and pleasant tinkling is conveyed to our ears at the mention of these names, and we recognize old friends whose acquaintance we have made in the "foramen Vesalii," the "aqueductus Fallopii" and the "Eustachian tube." Ambrose Paré, that grand old surgeon who revived the use of the ligature for the arrest of hemorrhage and discarded the terrible red hot cautery, and Tagliacotius, the plastic surgeon who taught us to replace lost noses, and to correct other deformities of the face, lived during this century.

An event of the highest importance to the development of the medical profession was the establishment of the Royal College of Physicians of London in the year 1518, by the distinguished physician Thomas Lineacre.

The 17th century is too eventful to attempt more than a bare recital of some of its most important incidents. Anatomy and physiology were pursued with zeal and wonderful success. Omitting any account of the many and important discoveries made by others, we cannot pass by the achievement of the immortal Wm. Harvey, who, in 1619, made known the manner in which the blood makes its circuit from the heart into the arteries, through the minute capillaries into the veins, and thence back to the heart, and thus solved a problem which had puzzled the minds of the most learned from remote ages to his own time. Sydenham, that prince of physicians who enriched medicine in many ways, lived and taught in the latter part of this century. About this time also was invented that life-saving instrument, the obstetrical forceps, by the Chamberlens, which marks an epoch in the history of the obstetric art, and has placed womankind under everlasting obligations to this distinguished family. About 1640 cinchona bark was introduced into Europe, and for this boon as well as many others the old world is indebted to the new. It is probable that more lives have been saved by this drug than by any other article of the materia medica. The annals of the 18th century are illumined by the labors of the illustrious Boerhaave, at one and the same time Professor of Medicine, Botany and Chemistry at Leyden, in his day the most learned man in all Europe; by the brilliant genius of Haller, celebrated alike as an anatomist, physiologist and botanist; by Anel, who taught the world how to cure aneurisms by ligation of the artery above the tumor; by Van Zwieten, who reorganized the medical school of Vienna, and laid the foundation of that fame which yearly attracts thither medical men from all quarters of the globe; by Galvani, to whose discovery we are indebted for the introduction of elecctricity into medical practice; by Cullen, the great Scottish Professor of Medicine; by Munro, equally distinguished as an anatomist; by Wm. and John Hunter, especially the latter, whose observations upon anatomy, physiology, pathology and surgery are to this day read with delight and profit. One more figure, the most imposing of them all, will close our consideration of this period. Edward Jenner, the discoverer of vaccination, made his immortal announcement near the close of this century, and made himself the benefactor of his own and all succeeding ages. By this one boon, countless thousands of lives have already been saved, and it is beyond doubt the most important benefaction that has yet been given to man by human hands.

We have now reached a period within the memory of many who are yet living. The events of the 19th century defy enumeration in any address such as I am privileged to make upon this occasion. The discovery of auscultation and percussion by Lænnec, whereby the hidden diseases of the thorax are made plain; the employment of the clinical thermometer to determine the temperature of the body; the introduction of various instruments of precision in the investigation of disease; the invention of the laryngoscope for exploring the air passages; the subjugation of electricity for diagnostic and curative purposes, all attest the restless activity of our age. In the department of pathology thousands are invading the remote recesses of disease with scalpel and are searching out its hiding places with the eye of the microscope. The labors of Pasteur, of Virchow, of Koch, of Cohnheim, and of many others, are

recognized the world over. This century will perhaps be distinguished from preceding ones by this indefatigable search after the causes of diseases as much as by any other characteristic. Surgery has reached a stage of great perfection. Almost all parts of the body have been invaded, and operations are performed with impunity which 100 years ago would not have been dreamed of. Ovarian tumors were first removed by our countryman Dr. Ephraim McDowell, of Kentucky, about the year 1809, and though he was described as a butcher he succeeded in curing 8 out of 12 cases. To-day, in the hands of Keith, of Edinburgh, and Tait, of Birmingham, only 3 in 100 die. Following the development of this operation, many other until recently unheard of procedures are now performed, as removal of the kidney, of the gall bladder and of other organs of the body. The cranium has been opened and abscesses of the brain evacuated; the lungs in several cases have been invaded by the surgeon's knife or cautery for one purpose or another; even the heart, that very dayspring of life, is not held sacred, and it is probable it may yet be brought within the domain of operative interference. How comes it that the surgeon of to-day possesses this power of subjecting disease to his will? Many factors enter into the answer to this inquiry, but that which has been of especial potency in making such results possible, is the discovery of anæsthesia; a blessed gift to suffering humanity, the value of which cannot be overestimated. Again have we to thank American genius for this noble boon, Dr. Crawford W. Long, of Georgia, having been the first person in the history of the world, as far is known, to administer an anæsthetic for the performance of a surgical operation. The mere inscription of the names of those who have enriched surgical science during the last 84 years would fill pages; but how can we omit mention of Benjamin Brodie and Astley Cooper in England, of Velpeau and Larrey in France, of Strohmeyer in Germany, of Physick, in America in the first half of the cycle; and of Paget and Lister, of Langenbeck and Billroth, of Pean and Chassaignac, of Marion Sims and Bigelow, our contemporaries, whose writings and teachings we are daily profiting by. Whilst such great progress has been made in searching out the causes of disease, in diagnosticating its seat in the living person, and in the application of surgical art to the removal of various ills, equal attention has been paid to the science of therapeutics, or the application of remedies to disease. The animal, vegetable, and mineral kingdoms are required to pay tribute to the needs of man. The action of remedies has been more thoroughly determined, and many new drugs have been introduced, some of which are of great value, as chloral, salicylic acid, and nitrite of amyl. Other substances highly recommended have not stood the test of time and experience, whilst others are still under trial. On the whole, decided, though slow, advance is being made in this branch also; and the hope is entertained that remedies may yet be found for such dread maladies as pulmonary tuberculosis, cancer and Bright's disease. It is not beyond the pale of comprehension that our efforts may yet be rewarded in this direction, when we consider the fearful mortality of malarial diseases previous to the introduction of cinchona, and the comparatively small death-rate now. One other field of medical knowledge is very attractive and bids fair to be that which will yield best results in the future, namely, that of preventive medicine. It can scarcely be denied that it is more praiseworthy to prevent sickness than to cure it, and it is certain that many of our ills depend upon preventable causes.

My task is complete. I have undertaken to show from what small beginnings medicine took its origin, and to what stupendous growth it has attained. It will be seen that it is not the result of the labor of any particular man, time or country, but that the collection of facts, observations and experiments, now in Egypt, now in Greece, from Asia to America, from Africa to Europe, have been preserved, classified and utilized. As far as possible the truth has been retained, and falsehood and trickery exposed and eliminated. With the means of communication now at our disposal, medical knowledge must be cosmopolitan, it cannot be confined to any one country or sect. The printing press, the telegraph and the power of steam have contributed immeasurably towards the development of our art. If by this hasty and imperfect sketch I may have inspired any to emulate the example of those worthies who have gone before, who were untiring in industry, moderate in prosperity patient in ad-

versity, I am more than repaid for my trouble.

"Lives of great men all remind us,
We can make our lives sublime,
And, departing, leave behind us
Footprints on the sands of time,

"Footprints, that perhaps another,
Sailing oe'r Life's solemn main,
A forlorn and shipwrecked brother,
Seeing, shall take heart again.

"Let us, then, be up and doing.
With a heart for any fate—
Still achieving, still pursuing,
Learn to labor and to wait!"

FOREIGN BODY IN THE INTERIOR OF THE LEFT EYE, OF THREE YEARS' DURATION, CAUSING SYMPATHETIC OPHTHALMIA OF ITS FELLOW. REMOVAL OF THE FOREIGN BODY—FULL RECOVERY OF THE RIGHT EYE—MARKED IMPROVEMENT OF THE LEFT EYE.*

BY M. LANDESBERG, M. D.

I have the honor to exhibit to you, Mr. President, to-night, one of the most interesting cases I have ever had the good luck to meet with in my practice.

This gentleman, 41 years of age, had the misfortune to be struck by a splinter of metal in his left eye, July 13, 1881, about six weeks after he had come to this country. Blindness set in within ten minutes after the accident. He applied on the same day at Wills' Eye Hospital, where he was advised to have the eye removed at once. Not quite relishing this prospect, he went to the Jefferson Medical College, where he was admitted for treatment after he had refused the enucleation, which was also at first proposed to him. There he remained for six weeks, during which time the incident inflammation passed off entirely. The globe was preserved, but vision was not restored. He enjoyed good health until March, 1882, when the first symptoms of sympathetic disorders began to develop in the right eye. Asthenopic troubles made their appearance, followed by sensitiveness to light and photopsies. The acuteness of vision gradually diminished as well for distant as near objects.

And now he began his wanderings from one oculist to the other; he hardly spared one, if I have to believe his testimony. Nothing was done for the benefit of the right eye, which changed from bad to worse. Enucleation of the left eyeball was pronounced by all authorities as the ultimate ratio by which the condition of "nervous irritation" in its fellow might possibly be checked.

When I saw the patient for the first time, September 5, 1883, I ascertained the following condition:

No irritation whatever in either eye. Vision of the right eye was 10-20; with convex 40, 10-15. Pupil of normal shape, but of somewhat sluggish reaction; accommodation is impaired in consequence of paresis of the accommodative muscle. With naked eye patient reads Jaeger 13 at about fifteen inches distance; with the help of convex 10, Jaeger 3 at eight inches. Field of vision and tension are normal. There exists an eccentric positive scotoma, outside of the point of fixation. The subjective complaints are of photopsies and scintillations. Ophthalmoscopic examination reveals no morbid changes.

Left eye counts fingers at two feet peripherically outwards. The cornea shows a linear horizontal cicatrix on its lower third running from the outer corneal margin towards the pupillary region. The lower half of the iris is disorganized and presents in its middle a funnel-shaped depression and close to its temporal border a mound-like elevation. The pupillary margin of this segment of the iris is connected by three blackish filaments with the dense opaque whitish membrane, which stretches across the whole pupillary plane, filling up the latter to the greatest extent, even after the pupil had been dilated by a mydriatic.

The presence of the above described "*depression* and *elevation*" in the lower half of the iris, which were situated just opposite the corneal scar, aroused my suspicion that the foreign body might possibly lay imbedded in this region. An operation for the removal of the foreign body seemed to me to be a matter worth trying at first, by which nothing was risked and everything might be gained. The enucleation of the eyeball I regarded as the last expedient, to which I would resort if I should be baffled in my intentions.

I spoke to the patient to this effect, tell-

* Read before the Philadelphia County Medical Society, September 17th, 1884.

ing him that I must have full liberty to act according to my best judgment and to be allowed to enucleate the eyeball if I should fail to extract the foreign body.

He took time for deliberation and reflection until May 19th, 1884, when he returned in the following condition. In the meanwhile he had repeated and completed his circuit among the specialists.

Vision of the right eye 10-30; with convex 60, 10-20; complete paralysis of the muscle of accommodation. With the naked eye he reads Jaeger 16 at eighteen inches distance; with the help of convex 10, Jaeger 5, at ten inches. The shape of the pupil is normal, its reaction sluggish. The visual field is somewhat limited in the upper sector, and its outer-upper quadrant is occupied to the greater extent by the eccentric positive scotoma. Patient sees all objects as through a veil, and is greatly annoyed by photopsies and scintillations, and by the perception of a bluish flame, which constantly occupies the centre of the visual field. He complains besides of the most various abnormal sensations in and around the globe, of a feeling of pressure in the depth of the orbit against the eyeball, of pains in temples and forehead, of sensitiveness to light, etc.

The ophthalmoscopic examination reveals venous hyperæmia of the retina. Optic disk is pinkish red, of somewhat indistinct tints.

The condition of the left eye has not changed.

I operated upon the left eye in the following manner:

I made a section at the sclero-corneal border, just within the limits of the morbid changes in the iris, introduced Liebreich's iris-forceps, grasped the whole segment of the iris, which contained the "*depression* and *elevation*," drew it out and cut it off. No foreign body was found in the excised piece of iris. Now I again introduced a pair of forceps, caught the membrane, which covered the whole pupillary region and managed to remove it entirely. On inspection a small oblong piece of metal was found imbedded in the posterior surface of the lower end of the membrane. Considerable hemorrhage followed the operation and a few drops of vitreous escaped from the wound.

A compressive bandage was applied on both eyes.

No reaction whatever followed the operation and the healing process took place most favorably. The bandage was removed on the third day.

When I examined the patient on the eighth day, the condition was as follows:

Vision of the right eye 12-15; with convex 72, 12-12 is read at fourteen inches distance, with the naked eye. Subjective complaints greatly abated. No photophobia and lachrymation. Scotoma somewhat more transparent.

The left eye shows a very fine artificial pupil. The hemorrhage in the anterior chamber is only partly absorbed. Vitreous contains blood and dense floating opacities.

This remarkable improvement in the condition of the right eye had taken place without any other influences having been brought to bear upon it but the extraction of the foreign body. I abstained from all therapeutics during the eight days, and no more forcible proof of the sympathetic nature of the affection can be adduced than the spontaneous recovery after the cause of irritation had been removed.

An alterative and derivative treatment, which I now instituted, had the following effect:

Vision of the right eye is at present 12-8. The pupil is of normal reaction, the accommodative paralysis has greatly improved. His punctum proximum is at fifteen inches, and he reads, with the help of convex 10, the finest print (Jaeger 1) at six inches distance. The visual field is normal and the scotoma has contracted to an oblong rod of about two inches in length and of one-eighth inch in diameter. This scotoma is transparent and does not interfere with vision. All subjective complaints and perceptions have vanished, with the only exception of the bluish flame, which, however, but faintly and only occasionally appears in the visual field. Background of the eye is normal.

Vision of the left eye is 1-16, and may possibly improve still more in the future. There still are large floating opacities and some bloody streaks in the vitreous. The background of the eye can only dimly be seen. There are morbid changes in the retina and choroid, due to inflammatory processes which had taken place in these parts.

You have, gentlemen, before you a case in which a foreign body had penetrated into the eyeball, causing traumatic cataract

and consequent morbid changes in the uveal tract and retina. The lens is absorbed, and a thick opaque membrane (secondary cataract) obstructs the whole pupillary region. The foreign body remains imbedded in the posterior surface of the lower end of this membrane for nine months, without doing any harm. Then the right eye begins to show symptoms of sympathetic trouble. Amblyopia and paralysis of the muscle of accommodation develop. And while these morbid changes of the most serious character take place, no inflammation proper, no objective irritation, can be observed in either eye. The injurious influences, which have continued to work for two years, are checked at once by the removal of the foreign body. The secondary affected eye makes a marvelous recovery, which far surpassed all my hopes and expectations. Such a vision of 12-8 is only met with in very rare instances; and the primary injured eye, which was not considered worth while being preserved, improves to such a degree as to enable the patient, should he have the misfortune to lose his right eye, to find his way in the streets, to recognize faces, to distinguish features, and eventually to gain a living by peddling, etc., if need should be. This case may justly be called a triumph of conservative surgery.

THE CURE OF CROOKED NOSES BY A NEW METHOD. *

BY JOHN B. ROBERTS, M. D.

I present this patient to the Society, to show the manner in which I treat the very disfiguring lateral deformity of the nose, so often seen after falls or blows which have fractured the septum and cartilages. The method is, I believe, original. It is certainly attended with very little inconvenience to the patient, who, after recovering from the anæsthetic, can at once attend to his occupation, without wearing any apparatus to call attention to the surgical procedure by which his crooked nose is being made straight and shapely. The usual advice given to patients with deformed noses, from nasal fracture sustained in childhood or later, is to undertake no surgical treatment, but to become reconciled to the disfigurement of feature as best they may. This is, I am sure, improper advice. The cosmetic objection to a crooked nose is cogent; and, moreover, obstruction of one nostril, from the displaced cartilages, is a frequent accompaniment of such lateral deviation of the tip of the nose.

This man sustained, ten years ago, a fall upon his face, from which he recovered, with the end of the nose bent to the right, and with considerable obstruction of the left nostril. I operated on him day before yesterday. You see now a straight nose, and nothing to call attention to the operation, except a small piece of black court-plaster a little to the right of the nasal bridge. Just within the right nostril, close inspection reveals the head of a pin, situated on the side of the septum, near the columella. The method of operation, therefore, is certainly not objectionable on account of making the patient unpleasantly conspicuous during treatment. This evening I merely wish to show the man, and refer to my method of dealing with such cases, because at a later time I hope to bring the subject of curing nasal deformities before the Society in a more formal and elaborate manner. Then, I may have no patient undergoing straightening of the nose, to illustrate the remarks.

Replacement of the deformed structures in this case was very simple. With a scalpel introduced through the left nostril, I perforated the cartilaginous septum at its upper and back part, and made a long incision through it in a direction downwards and forwards. This permitted me to push the whole cartilaginous portion of the nose to the left, and overcome to a great extent the lateral deformity. To retain the parts in this position, I introduced a steel pin about one and one-fourth inches long, into the right nostril, and passed it completely through the anterior and upper segment of the divided septum, near the columella. Having the movable portion of the septum thus transfixed, I was enabled, by carrying the head of the pin to the left, to move the anterior part of the nose to the left, and retain it there by imbedding the point of the pin deeply in the immovable cartilaginous septum and mucous membrane at the back of the left naris. In other words, I incised the deformed cartilage, and pinned it in position very much as you would pin a

* Read before the Philadelphia County Medical Society, September 17th, 1884.

flower in the button-hole of a coat. There still remained a little deflexion of the end of the nose to the right, which seemed to be due to mal-position of the lateral cartilage close to the right nasal bone. With a tenotome in the right nostril, I pared the cartilage loose, without perforating the skin, and pinned the parts over to the left by a second pin inserted from the cutaneous surface of the dorsum on the right of the median line. The point of this pin was fixed by having its point imbedded in the tissues of the left naris. It is the head of this second pin that is covered by the small square of court-plaster. The correction of the angular deformity of the septum removed most of the occlusion of the left nostril, which had greatly annoyed the patient.

I have thus given an idea of the method which has, I believe, great capability for relieving unsightly nasal deformities. The novelty consists merely in pinning the parts in position until cicatrization takes place. Endeavors have occasionally been made, as by Mr. Adams, Dr. Weir and others, to hold deflected noses in position, after operation, by the use of clamps, rods attached to the forehead, adhesive plaster, plugs and similar devices. All of these are objectionable, because so conspicuous and troublesome, and would probably be adopted only in instances of great deformity. The pin method, however, leaves no noticeable scar, is not troublesome to the patient, and is applicable, therefore, even to those slight deformities, whose chief annoyance is an æsthetic and cosmetic one. I leave the pins in position about two weeks.

A few years ago, Dr. Mason, of Brooklyn, recommended the use of steel needles to hold the nasal bones in position, when, after recent comminuted fracture, it was difficult to keep the fragments sufficiently elevated. He transfixes the nose below the depressed fragments, and carries a piece of plaster or a rubber band across the external surface of the bridge from one end of the needle to the other. The needle acts as a girder to tie the base of the nasal arch and prevent its falling in. This is a different use of the pins or needles from that which I am describing, and for a different purpose.

I have pins of lengths varying from one inch to two and one-fourth inches, and with flat heads, so that there will be little projection under the court-plaster to attract attention when the patient is in public. The heads are square, that the pins while imbedded may be, if necessary, readily rotated by the fingers.

When the deformity is in the osseous portion of the nasal bridge, section with small chisels is usually necessary. Discussion of this topic, however, would carry me beyond the limits of the present subject.

Free incisions are essential in obtaining good results in cases of nasal deformity such as was exhibited by this patient. The surgeon must not spare the knife and thereby spoil the nose. Secondary operations may sometimes be required to get the best results. If a simple incision did not allow proper adjustment, I should excise portions of the cartilage with the oval punch or the scalpel, or make multiple stellate incisions with the stellate punch, and so produce general flexibility of the cartilage.

Recurrence of deformity would, I think, be less likely to occur after free incision, pinning and cicatrization, than after simple dilatation, with or without incision with the stellate punch.

Society Reports.

PROCEEDINGS OF THE MEDICAL SOCIETY, DISTRICT OF COLUMBIA.

STATED MEETING HELD SEPT. 24, 1884.

(*Specially reported for Maryland Medical Journal.*)

The Society met with the President, Dr. Garnett, in the Chair, Dr. McArdle, Secretary.

Dr. Samuel S. Adams read a paper on Strabismus Convergens as a Sequela of Diphtheria Unaccompanied by Paralysis of Accommodation.—The boy, 2½ years of age, had an attack of diphtheria, from which he recovered in ten days. Shortly after the doctor ceased visiting him paralysis of the pharyngeal muscles was pronounced. Five days later the child was choked almost to death by a piece of Irish potato. He was turned upside down, jolted and swung in the air, when the foreign body was dislodged. As soon as consciousness was restored he complained of double vision, when the parents noticed that both eyes were turned in to an extreme degree. Frequent testings showed that there was no paralysis of the external

recti muscles or of accommodation. The doctor assured the parents that this complication was due to the disease and that it would disappear as the child improved. But to be more certain he invited Dr. Burnett, a specialist, to see the patient. Dr. Burnett found the condition as described, but did not believe it due to the diphtheritic poison but a concomitant strabismus due to a want of equilibrium between the ocular muscles. He thought it might have occurred from an exhausting disease. Dr. Adams did not agree with Dr. B., but yielded to his vast experience in diseases of the eye.

In two or three days after this visit the parallelism of the ocular axes was suddenly restored and remained so.

Dr. Adams believed the strabismus to be due to a tonic contraction of the internal recti caused by the poison irritating the centres of ocular adduction.

In the discussion which followed, *Dr. Reyburn* asked if no internal medication was used.

Dr. Adams replied none but alcoholic stimulants.

Dr. Smith said he had met with two cases of eye trouble following diphtheria. In the first case, which occurred about eight years ago, the patient, a little girl of five years, had membranous deposits covering the tonsils, but the case was a mild one and the child was soon well. In about a month, however, her mother called attention to the fact that the child was dragging one foot in walking, and when attempting to swallow liquids these were returned through the nose. The voice was at the same time altered so as to resemble the barking of a dog, and it was with difficulty that she could be understood.

Shortly after strabismus appeared in one eye, and the combined paralytic symptoms gave the patient quite a repulsive appearance. The treatment was principally by nux vomica, and in about three months the child had fully recovered.

The second case occurred in the latter part of July of the present year, during Dr. Smith's absence from the city, and was seen by Dr. Jos. T. Howard. On Aug. 1st Dr. Smith visited the child and found the tonsils and pharynx covered by diphtheritic membrane. Under treatment the boy soon recovered, but about three weeks ago the father of the boy informed Dr. S. that his son had difficulty in swallowing fluids, which returned through the nose whenever the boy drank. There was, also, a change in his voice, so that, at times, it was hard to understand him.

Shortly after the appearance of these symptoms the boy was observed to put his hand over one eye, or forcibly close the lids, when attempting to look at any object. On being questioned, he said that whenever he looked at a person in the street he saw two people. There was no perceptible strabismus present, although this might have been intermittent, not constant. There was no impairment in vision. Tincture of nux vomica, in six drop doses three times daily, was given until about a week ago, when he was put on syrup of the hypophosphites, and he is now improving and able to attend school. The experience with these two cases led Dr. Smith to consider that paralysis following diphtheria was generally amenable to treatment.

Dr. Burnett deemed it due to himself to state more fully the reasons which had led him to believe that the strabismus in Dr. Adams' case was not in the order of ordinary paretic sequelæ of diphtheria. He explained the difference between paralytic and concomitant strabismus and pointed out why the case under consideration belonged in the latter category. So far as they were able to determine, there was no actual lack of power in the external recti,but there was an overplus of energy in the internal recti. This disturbance of the equilibration of muscular forces on the part of the recti muscles was often observed in cases where there was muscular debility or deranged nervous action. He related a case in point where a convergent strabismus had followed a sharp blow on the forehead though the eye was not injured. Recovery took place in a few days, but the strabismus returned on the occurrence of a severe fright. He was inclined to think that in these cases there was a decided inclination to strabismus and that the eyes remained parallel only because of a perfect condition of the muscular and nervous forces. He would expect to find on examination of such eyes some error in refraction and most probably hypermetropia. He wished to examine into the refraction condition of Dr. A.'s case, but no opportunity offered. Still he was not prepared to deny the existence of strabismus as a sequela of diphtheria

particularly after hearing the histories of the cases of Dr. Smith, and he was glad Dr. Adams had brought the subject to the attention of the profession, and he was in hopes that members of the Society would be observant of the ocular symptoms of their diphtheria cases in future, for it seemed likely that these disturbances in the external muscles would prove another bond connecting the special with the general practitioner.

Dr. Taylor—Mr. President, I have not had much experience in paralysis following diphtheria. I recollect but one case occuring in my practice, and that was paralysis of the lower extremities. Morell Mackenzie says the proportion of cases of paralysis in diphtheria is about ten per cent., and that the muscles most frequently attacked are the muscles of the soft palate and pharynx, and next in frequency are the muscles of the eye. The paralysis is a paralysis of accommodation; the patient becomes fatigued, sees double and squints; objects at a distance can be seen without difficulty. The primary trouble is in the nerve cells of the sympathetic chain. That in paralysis of the pharynx the lesion is in Meckel's ganglion, and in paralysis of the eye the nerve change is in the lenticular ganglion. The motor nerve centres are not often affected. I believe Hughlings Jackson has demonstrated that in deafness following diphtheria the otic ganglion is the primary seat of trouble.

The paralysis in Dr. Adams' case was, in my opinion, due to the general lowering of the tone of the system incident to the disease, just as might happen from over-fatigue or from broken-down constitution. I call to mind a case of loss of muscular power occurring in an old man who was over-fatigued; he walked to the left, and could not get to the door of the house he was trying to enter, until he fixed his eyes on an object some little distance to the right of the door and directed his steps towards that point. This old gentleman died a few months after from general paralysis. This walking to the left was the first indication of a breaking up of the constitution from old age.

Dr. Adams attributes the cure in his case to spraying the throat with lactic acid, and mentions as showing the efficacy of this treatment, that the membrane did not reform on the throat after clearing off. Mackenzie and other authorities state that it is very uncommon for the membrane to return after it has spontaneously cleaned off.

Dr. Hagner asked how long the strabismus lasted.

Dr. Adams replied ten days.

Dr. Hagner then said, we have all seen paresis of this character come on from a lowered vital condition. He recalled the case of one child who will be affected by strabismus if his meals are deferred two hours or if he becomes greatly fatigued. A night's rest, however, always corrects the matter.

We also know that a "high state" will cause double vision, and the alcoholic irritant in the blood is said to be its producer. If there be such a thing as a diphtheritic poison, why cannot it cause a paralysis? If this paralysis disappeared before the paralysis of the throat it would seem that other influences were at work in its production. The rough handling and shaking of the child may have caused an embolus.

Dr. Schaeffer said we were all, by observation, familiar with the various paralyses of the "high state." The diplopia was generally due to paralysis of the ocular muscles. Naturally, it requires an effort on a man's part to see only one object, and when he is intoxicated he is incapable of making this effort. He recently read the statement of a naval officer who deprecated stringent examination in regard to color-blindness. As a substitute, he proposed that a number of lights should be used. But this would not remedy matters as far as men affected with diplopia were concerned.

Dr. Burnett said in the state of intoxication there is a general want of coordination. Thus a temporary diplopia is caused.

Patients who are affected by diplopia suffer from some anomaly of refraction.

Dr. S. Adams, in closing the discussion, said that through the politeness of the officers at the Surgeon-General's office he had examined all the literature, on the sequelæ of diphtheria, but was unable to find strabismus mentioned. There were about twenty essays on paralysis of accommodation. He thought it was as reasonable to suppose the diphtheritic poison had affected the two ocular centres as it was that it affected the centres presiding over the muscles of deglutition or any two sets of muscles. There is such a sympathy between the eyes that one can sel-

dom be diseased without in some manner impairing the usefulness of its fellow.

Dr. Toner called attention to the fact that works such as those quoted by Dr. Taylor might contain mention of a case which could not be found by merely examining the cards at the Surgeon-General's office.

OBSTETRICAL SOCIETY OF PHILADELPHIA.

STATED MEETING, HELD OCTOBER 2, 1884.

(*Specially reported for Md. Med. Journ*).

The President, R. A. Cleemann, M. D., in the Chair.

Dr. B. F. Baer exhibited specimens from a case of Submucous and Interstitial Fibro-cystic Tumor of the Uterus, in which Hemorrhage was Absent.—Mrs. H., æt. 36 years, has had two children, the youngest being twelve years of age. Four years ago she suffered from severe metrorrhagia, which was caused by a submucous and interstitial fibroma of the uterus. This was removed, and, after passing through a severe attack of peri-uterine inflammation, she recovered. After the removal of the growth her catamenial periods became regular in time and quantity and she remained well until about one year ago, when she began to have a very fetid, watery discharge in the intermenstrual periods. with sacral pain and uterine tenesmus On July 17th, her physician, Dr. R. Armstrong, of Lock Haven, requested me to see her with him, when examination showed the cervix to be twice its normal size, with swollen and gaping lips making the os and cervical canal quite patulous. The body of the uterus was as large as at the third month of gestation, but it was not symmetrically developed, being larger on the left than on the right side. The left broad ligament was indurated and seemed to be the seat of an old inflammatory process. Pain had been present in this region since the operation. The sound met with an obstruction at the internal os and was deflected to the right, passing to a depth of nearly four inches. It could be made to pass around a mass of some kind in the cavity of the uterus, giving an indistinct sensation of the presence of an abnormal growth. I expressed the opinien that although there had been no hemorrhage there was a submucous or polypoid fibroma present, and advised its removal. Seven tents were introduced, and twenty-four hours later ether was administered, when, with the assistance of Drs. Armstrong, Walls and Ball, I proceeded to remove the tents and explore the uterine cavity. On passing my finger within the internal os, I detected a smooth oval-shaped mass of tissue resembling in consistency the inverted uterus enlarged to about double its normal size. I carried my finger up with some difficulty and found the base or attachment of the tumor to be located at the fundus of the uterus, where it was narrowed somewhat forming a sort of pedicle. The tumor felt rather soft for a fibroma, and this, together with its shape, caused me to suspect inversion of the uterus, aud when I remembered that the organ is sometimes inverted by the operation for the removal of an interstitial fibroid which requires great traction as was necessary in this case four years previously, I became much more anxious to investigate fully before attempting to remove the mass. By very careful and thorough bimanual manipulation I convinced myself that the uterus was not inverted; there was no indentation anywhere on its surface; I therefore felt warranted in adjusting the wire of an écraseur around its attachment, and proceeded to tighten it, but the traction and manipulation, which were necessary in placing the noose, broke the surface of the tumor and exposed a peculiar looking membrane which resembled the peritoneum. I was alarmed at this fearing that I had really to deal with a partially inverted womb and that the smooth membranous surface was the peritoneum. I removed the écraseur, the wire of which had broken, and then passed one finger into the bladder and another into the rectum for the purpose of determining more certainly the condition of the peritoneal surface of the uterus. Now while an assistant made traction on the supposed tumor, I was enabled to satisfy myself fully that the organ was not inverted. I then removed the tumor by enucleation.

As you will see in the specimen which I present, there are a number of cysts. These cysts contained the semi-opaque coagulable fluid usually found in fibro-cysts and gave to the tumor its softness, which, together with its shape and the appearance of the cyst-walls when its surface was broken,

made it resemble an inverted uterus. The patient made a good recovery.

The case is very unusual for the reason that, although the uterine cavity was distended by a large submucous tumor which was becoming polypoid, not the slightest hemorrhage resulted. I do not remember to have met with a similar case. I have, however, met with cases of small polypi where there was no hemorrhage; two indeed were discovered after the menopause had been fully established and are worthy of record because of the reflex symptoms which they seemed to induce.

Uterine Polypes in which Hemorrhage was Absent, but which Gave Rise to Symptoms of Pregnancy.—Mrs. C. was 46 years of age; she had been married twenty years but never had been pregnant. The menopause had occurred one year previous to the date at which I saw her. Soon after the cessation of the catamenia her abdomen began to enlarge and she thought she was pregnant. Various irregular reflex symptoms of pregnancy developed and she became so convinced that she engaged the services of an accoucheur and nurse, and went into labor in due time. Her physician, my friend Dr. John H. Musser, was unable to discover the least physical sign of gestation, nor anything else which should give rise to the almost perfect labor-like pains which she seemed to have at irregular intervals. He informed her that she was not pregnant. She became indignant and asked him to call another physician to confirm what he said. He consented and requested me to see the patient. I excluded pregnancy, but found in the cervical canal a fibrous polypus not larger than an ordinary marble. This I at once removed and the pains and other signs of gestation immediately subsided.

This was one of those cases of spurious pregnancy which we sometimes see developed in a sterile woman about the period of the menopause. The desire for offspring is strong. The cessation of the menses starts the delusion and it is kept in existence and made to grow by being constantly fed by a morbidly susceptible nervous system. But there was a local irritation here to account for the reflex symptoms of gestation, as I believe there is in the majority of these rare and interesting cases. It is three years since this patient was under treatment and there has been no return of the reflex disturbance.

The other case to which I wished to refer occurred in the practice of my friend Dr. B. Trautman, who kindly asked me to see the patient with him.

Uterine Polypus in which Hemorrhage was Absent but which Seemed to Induce Severe Reflex Head Symptoms.—Mrs. K., æt. 52 years, has had two children, the youngest being twenty-five years of age. The menopause had occurred four years previously and she did not complain of the slightest local symptom of uterine disease; but the flushings and other nervous manifestations which often attend this period had not yet subsided. The disturbances, however, which concerned her most and for which she consulted the doctor, were a pain and pressure of a very aggravated form on the top of the head. Many remedies had been prescribed for the relief of this, but with only temporary benefit. A uterine examination was made and a polypus resembling in size a small walnut discovered in the canal of the cervix. This was removed some months ago, and I believe the patient has been relieved of the headache and other reflex symptoms which seemed to result from its presence.

The influence which these small growths have on the nervous system is something remarkable. But the absence of hemorrhage, especially in the first case, is more notable when we recall its size and location, and remember that death has resulted from the hemorrhage caused by polypi not larger than a pea, as recorded by Locock, Klob, Courty and others. I have no doubt some of you can recall cases, as I can, where death would doubtless have resulted from the hemorrhage produced by a small polypus, had not the cause of it been removed. The following is an illustrative case:

Uterine Polypus Attended with Great Hemorrhage.—Mrs. P. consulted me on September 20, 1883. She was 30 years of age, and has been married eight years but has been sterile. Two years ago she began to suffer from menorrhagia with uterine tenesmus. Soon after she lost blood at irregular intervals and in large quantities; the past year she had not often been free from metrorrhagia or a profuse and offensive leucorrhœa. The hemorrhage would sometimes last a whole month continuously and

leave her so prostrated and anæmic that it was thought she could not rally. She had lost thirty pounds in weight and was blanched in appearance.

I will confess that I was surprised to find, on examination, that my patient had a polypus not larger than a Concord grape; but the mucous membrane of the cavity of the uterus was hypertrophied and granular. The pedicle was attached far up in the cavity of the uterus. The tumor was removed by means of the curette. The patient now menstruates regularly. This case contrasts strongly with the three others in its hemorrhagic character, and presents the history commonly met with in these growths. There is no doubt that the location of the tumor has great influence in the causation of hemorrhage in these cases, much greater than the size of the growth; but much also depends upon its histological character and the condition of the endometrium. Thus when a fibroid tumor or polypus is situated in the cavity of the uterus proper, more hemorrhage is likely to result than when it grows from the tissues of the cervix, because if located in the former position it is often of the muscular variety and therefore more vascular, and the mucous membrane of the uterine cavity, which is the direct source of the hemorrhage, is usually hypertrophied and granular as in the last case narrated. Moreover, when the cavity of the uterus is the seat of a polypus, the uterine and pelvic circulation is stimulated by its presence, somewhat in the manner in which it is affected by the presence of a fecundated ovum which has been blighted; it is a foreign body and the uterus tries to expel it, but by the effort the circulation is excited in that direction and hemorrhage results. My first case, however, furnishes an exception to the rule that hemorrhage attends when the tumor occupies the uterine cavity, but as tenesmus was present it is possible that hemorrhage might have occurred later had the tumor been allowed to remain.

Dr. Goodell remarked that the question of hemorrhage in polypi is a curious one. It seems less likely when the tumor is in the body of the uterus, and checks the amount of circulation by exciting tonic contractions, than when it is protruding into the vagina like the clapper of a bell. In one case, where the hemorrhage had produced extreme anæmia, dialysed iron was given to relieve the anæmia, and it also checked the hemorrhage. In another case operation was refused and death resulted.

Correspondence.

BALTIMORE, Oct., 13th, 1884.

Messrs. Editors of Maryland Medical Journal:

GENTLEMEN:—Knowing the prevailing opinion among both the laity and profession that there is an undue proportion of physicians to the population of our State and of the United States, and that the numerous accessions to the profession from the large number of medical schools, had of late years still further increased the disparity, to test the accuracy of this idea, in the absence of other data, I had recourse to the census reports of 1850, '60, '70, '80. The results of my investigations which I must admit, were a surprise to me, are appended. Thinking they might possibly be of interest to other members of the profession, I send them to you for publication.

Census	Population of U. S.	No. of Physicians in U. S.	Proportion of Physicians to Pop. in U. S. one to
1850	23,191,876	40,564	571
1860	31,443,321	54,543	576
1870	38,558,371	62,383	617
1880	50,155,783	85,671	585

Census	Population of Md.	No. of Physicians in Md.	Proportion of Physicians to Pop. in Md.
1850	588,034	990	588
1860	687,049	1093	628
1870	780,894	1257	620
1880	934,943	1551	602

It will be observed that there was an increase of population to physicians in every decade from 1850 to 1870 inclusive, and that there was a sharp decline in 1880. The population has, however, increased in proportion to the number of physicians in 30 years. It is a matter of surprise to me how small the variation has been in the four censuses recorded. It seems to follow the law of supply and demand. How this law makes itself felt would open an interesting field for speculation. The great increase of the ratio of population to physicians in 1870 in comparison with 1860 may have been due to causes growing out of our civil

war. A more normal condition of things existed in 1880, and as a consequence the proportion resumes more of its former character showing a slow but steady increase of the population in proportion to physicians. In Maryland, it will be seen, the ratio increases and decreases in sympathy with the rest of the country, and further the figures indicate that we have a larger proportion of population to medical men than prevails in the country as a whole.

In conclusion, I would like to state that I entered upon this investigation entertaining views diametrically opposed to the results obtained, and further, that no other motive but a desire for truth as near as possible has actuated me in compiling them.

W. N. Hill, M. D.,
196 E. Baltimore St.

VIRTUE ITS OWN REWARD—(SOMETIMES ITS ONLY).

Baltimore, Oct. 1, 1884.

To the Editor of the Md. Med. Journal:

A very interesting and pertinent paper, which was read at the late Sanitary Council, deserves not to be omitted from your report of proceedings. It was modestly entitled "The Relation of Pharmacy to Hygiene," by John F. Hancock, D. Ph., Baltimore. *Incidentally*, it exposed the lamentable attitude of indifference maintained by physicians towards the legitimate druggist, who loves his own profession and studies at the same time to protect the interests of ours. What distinction do we draw between the class he so well typifies, and the great mass of drug merchants or hucksters who are the agents of quackery and presumptious ignorance. His paper reviewed the rise of pharmacy as a profession and treated of its importance to the public through insuring purity of drugs, regulation of sale of poisons, etc., etc. It's rather unreasonable to expect an honorable man, who has qualified himself to compound prescriptions, and be the doctor's adjunct, to make a competency out of the sale of licorice, postage stamps and soda water!

Have we not preached "discrimination" long enough in our code to begin to practice it a little? These questions were not asked in Mr. Hancock's paper, but his dignified utterances certainly awakened them in my mind.

With the co-operation of my profession, I will readily undertake to make general the view on which I feasted last week in a drug store on Penna. Ave., viz.: counters without a patent medicine *in sight.*

Yours, etc.,
Dr. Schaeffer.

Editorial.

"The Man with a Rail-Road Spike in His Head."—In our issue of August 2nd, 1884, we commented editorially upon the remarkable injury of Valentine Fritz, and without mentioning the name of the medical attendant or criticising the treatment pursued, we made it the text of a few remarks upon what we conceived to be the rational treatment of penetrating injuries of the cranium. In the Oct. number of the *Medical Chronicle*, Dr. John D. Blake, the attendent in the above case takes exception to our statements, in language far more forcible than polite. In plain English the Doctor asserts our statements to be untrue. He says the writer "loses sight of the necessity for truthful statements in such writing; and while I duly appreciate the kindness of the writer in pointing out the views of various authors on the management of injuries of the head, I depreciate his way of making assertions which have no foundation in fact."

We will now examine into the justice of this arraignment. In the matter of the date of the injury we stated it to have been July 17th. Dr. Blake says it occurred on the 15th. We humbly beg the Doctor's pardon and grant that may have been the correct date. With this one exception we do not find any cause to change our editorial remarks in the slightest particular. In regard to the time of his death, it was stated to have been 4 or 5 days later, that is, after the receipt of injury. Dr. B. says he was found on the 15th and died on the 20th, hence he lived about 5 days. Where is our mistake? The rest of the statements of the Doctor are simply puerile, and may be disposed of in short order. Our statement was correct that, "*a physician was called who extracted the nail which had penetrated several inches into his brain.*" Dr. Blake says: one reading the above would be led at once to believe that I had been

called the same day the accident occurred, and had the advantage of sufficient time to institute treatment for the prevention of inflammation and its consequences." We are not responsible for anyone's assumptions, Dr. Blake included. We also stated that no operative treatment seemed to have been instituted. The Doctor acknowledges such to have been the case.

It is a very interesting circumstance that the spike remained in the head 48 hours before removal, but it does not at all affect our opinion that punctured fractures of the cranium always demand the application of the trephine. We think our editorial statement will hold good: viz., "The trephine should be applied early before inflammation occurs, as a preventive, but it should not be neglected even if some days have elapsed and symptoms of meningitis are present." The age of the patient was no counter-indication, indeed it rendered operation more imperative.

The Doctor's method of deducing conclusions from no premises at all appears again in the statement that we inferred from the post mortem revelations that "if the fragments of bone had been removed when I was called on the 17th, though they had been there since the morning of the 15th long enough to set up (with the spike) inflammation and suppuration, there would have been 'no consequent meningitis and cerebral abscess', ignoring in this statement entirely the injury done to the brain by the spike." "This assertion, to my mind, is as reckless as it is untrue." As we never made the above assertion, or drew any such inferences, we are at full liberty to agree with the last quoted sentence.

One more example of the rapid generalization of our complainant and we are through. He says, "he (the writer) would compare mine with the one that Erichsen in his work relates;" and again, "notwithstanding the above facts the writer claims the two cases to be identical, and because the trephine was used in the case of Erichsen with success, he intimates the same result would have followed that operation if it had been performed in my case." How any body can make such a preposterous statement as the above, is beyond our comprehension. We never compared the two cases, we never claimed them to be identical and above all we never inferred that Valentine Fritz would have recovered because the boy recovered, nor does our editorial anywhere indicate that we thought he would have recovered if any operation had been performed. We did not desire to criticise the treatment of the case, in fact, could not do so, as we were ignorant of it. We did, however, think the subject one of sufficient importance to bring to the notice of the profession, and nothing which has been said has convinced us of the impropriety of our remarks. We do believe that such injuries demand the trephine in order to remove foreign bodies, evacuate pus and allow cleansing, antiseptics and drainage to be used. And we believe further, to quote from our previous editorial, "*If they (foreign bodies) are allowed to remain, the patient will almost certainly die, and if removed he may get well.*"

The American Gynecological Society Increases Its Membership.—This distinguished body has always enjoyed the reputation of exercising great caution in admitting members. It is perhaps due to this fact that the society has maintained a high position among scientific bodies. Since its organization the limit of its membership has been placed at sixty, but, if we are informed correctly, the society has seldom reached this number of fellows. At the meeting held in Cincinnati several years ago the late Dr. J. Marion Sims urged a more liberal policy in regard to the admission of candidates. Dr. Sims argued that the society was in danger from its exclusiveness, and that the growth of gynecological practice throughout the country demanded a larger representation in the membership of the society. He urged that the limit of its membership should be increased to one hundred. We are pleased to note that this feature, so warmly advocated by Dr. Sims, was adopted by the society at its recent meeting in Chicago. With a view of extending its influence and inviting accessions to its ranks, the society has decided to increase the limit of its membership to one hundred, and do away with the rule requiring candidates to be recommended by the Council before being eligible for election. In future, we are informed, candidates for admission must present a paper on some subject in obstetrics or gynecology, together with an application, endorsed by two Fellows of the society, to the secretary at least one month before the annual meet-

ing, in order that their candidacy may be communicated to all the Fellows before the meeting; the election will then take place at the annual business meeting of the Society.

This paper is required not so much as a test of the candidate's fitness as a guarantee of his willingness to contribute to the literary work of the society.

It does not seem to us that the society has lowered in any respect its strict rule in regard to the election of Fellows. Since the society was first organized the number of specialists in this department has largely increased, and it is a judicious policy upon the part of the society to enlist into its service the better men in this specialty, who, under the former rule, were not admissible to membership.

The Fifth Volume of the Index Catalogue of the Library of the Surgeon-General's Office, very recently issued, adds another volume to this valuable series of works of vast informatian and reference. The present volume about equals in size the other volumes previously issued. It includes 15,555 author-titles, 5,755 volumes, and 12,596 pamphlets, 8,069 subject-titles of separate books and pamphlets, and 34,127 titles of articles in periodicals. It begins with the word *Flaccus* and ends with *Hearth*. No better evidence can be offered of the vast wealth of the Library of the Surgeon-General's Office than an examination of any one of these volumes of the Index Catalogue. We are assured that the publication of this catalogue will be continued, and all the vast and valuable treasures of the Library will be placed within the reach of the student of science. To Dr. J. S. Billings, the Librarian, and to his efficient and trained assistants in the work, too much praise cannot be given for the services which are being rendered to the profession.

Miscellany.

Internal Hemorrhoids—Their Treatment—A Plea for Carbolic Acid.—In the *Med. and Surg. Reporter* of Sept. 20th Dr. T. J. Happel, of Trenton, Tenn., compares the various methods for the treatment of internal hemorrhoids, and argues strongly for the method by hypodermic injection of carbolic acid into the substance of the tumor at its base.

A summary of his arguments is as follows:

(1) The long continued suppuration of the sloughing tumor incident to the ligature method is obviated, together with its risks of pyæmia, embolism and stricture of the rectum, as the tumors treated by injection of carbolic acid seldom slough, mummification being the usual result.

(2) The pain, which in the clamp cautery method is so intense and long continued, in the carbolic acid method is very slight being described as a strong stinging sensation lasting about five minutes and followed by a feeling of relief characteristic of the anæsthetic effect of the acid.

(3) The after-treatment of the injection method is very simple, and consists of merely keeping the bowels open after the third day following the operation.

This method, as employed, is that recommended by Gross. A mixture of two parts of carbolic acid to one of glycerine or olive oil is used, and from three to six minims are injected slowly through a small needle inserted to the base of the hemorrhoidal tumor. By the use of these small quantities of the acid the resulting inflammation is necessarily slight and the danger of sloughing reduced to a minimum.

The carbolic acid, in the opinion of the author, acts directly upon the coats of the blood-vessels, gradually inflaming and thickening them. In this way a narrowing of their calibre is produced until the blood supply is cut off altogether, and thus a gradual shrivelling of the tumor results. It is by this slow and gentle action that embolism is prevented, there being no authentic case of that dangerous complication having resulted from the method when rightly employed. The writer also states that in an experience, covering a large number of cases treated in this way, he has never had sloughing take place as the result, neither has he had a return of the hemorrhoid in any case.

Hæmoptysis and its Treatment.—Dr. Taylor (in the *Lancet*, June, 1884) discusses those cases of hæmoptysis in which there is a suspicion of pulmonary tubercle being present. Pulmonary hemorrhages are grouped under four heads: 1, the hemor rhage of the early stage of phthisis; 2, the

hemorrhage occurring when the disease is fairly advanced and is progressing; 3, the profuse hemorrhage of the last stage; 4, those occurring in cases of bronchitis, in "bleeders," in vicarious menstruation, and in mitral valvular disease. As regards treatment, the author states that in many cases he considers there is an undue precipitancy in employing the astringents usually advocated, and that in the early stage of pulmonary consumption a small amount of hemorrhage has been rather beneficial than otherwise. A blood-spitting at this period is merely a method to alleviate a congested apex. Consequently it is a congestion that has to be combated, not the subsequent hemorrhage. The best treatment in these cases is to attend to the patient's general health, ordering moderate exercise without fatigue. As regards climate, the author considers a residence in the high lands around Buxton and the Derbyshire Peak to be highly beneficial; whilst Bournemouth, Hastings, etc., are too relaxing. In cases where the pulmonary hemorrhage is severe, it is better to give a good purgative than to rely on large doses of gallic acid, etc. An ice-bag placed on the chest is considered valueless, but the opposite line of treatment is highly recommended, viz., the application of hot flannels over the angles of the ribs from the summit to the base of the thorax, *i.e.*, over the sympathetic ganglia. Turning to medicinal remedies, the chief drug which the author relies upon is opium, this acting like a charm if given alone and in sufficient quantities. Should the hemorrhage be very profuse, digitalis may be added in doses of fifteen to twenty minims of the tincture. When opium is contra-indicated, then oil of turpentine or the liquid extract of ergot are said to be useful.—*London Medical Record.*

On the Tolerance of Corrosive Sublimate in Small and Frequent Doses.—The above is the title of a paper by Dr. Andrew H. Smith, of New York (*Medical Record* of Sept. 20) which contains an account of the treatment of eleven cases of various diseases with corrosive sublimate in doses of from $\frac{1}{25}$ to $\frac{1}{15}$ of a grain, largely diluted at intervals of one or two hours; and the effect noted with the following results:

In five cases there was no ill-effect produced, while in the remaining six cases, diarrhœa with griping occurred in one; bloody diarrhœa in two, and ptyalism in two. In one case bloody diarrhœa occurred after seven hourly doses of 1-20 gr. the first day, and eight hourly doses on each of the four succeeding days; while in the other case it occurred after four days' administration of the drug in the same dose at intervals of two hours. In both instances the diarrhœa ceased immediately upon suspending the treatment.

Stomatitis occurred, in one case after five days' use of the bichloride in 1-20 gr. doses, and in the other after two days' use.

In one case an idiosyncracy caused gastric disturbance and vomiting immediately upon taking 1-20 gr.; the distress recurred upon repetition of the dose some hours later.

In one case of phthisical diarrhœa no obvious effect was produced, the diarrhœa being neither increased nor diminished by hourly doses of 1-20 gr.

In two cases of children under seven years, doses nearly equal to those given to adults were tolerated remarkably well.

In three cases, one of chronic diffuse nephritis, one of scarlet fever and diphtheria, and one of measles, the drug produced a marked diuretic effect.

In one case of phthisical hectic the bichloride produced an apparently marked reduction of temperature.

Dr. J. E. Free, of Emporium, Pa., in the *Med. and Surg. Reporter*, of Sept. 20th, reports a case of Elephantiasis Arabum of the right leg in an elderly lady. The disease had lasted since the age of 15 years and has since that time gradually increased in size by the usual recurring inflammatory attacks, but not until after her climacteric did it become so unwieldly as to interfere with locomotion. The limb is about three times its natural size and covered with a dark, scaly, fissured crust. This extends superiorly to the hip joint, while at the ankle the swelling is well defined and overlaps the foot.

Pruritus ani and the distressing itching of urticaria and mosquito bites can be much alleviated by local applications of menthol. It may be used by rubbing the menthol pencil lightly over the surface, or by dissolving a small amount in alcohol and bathing the part.—*Polyclinic.*

The American Academy of Medicine.—The Programme of the Ninth Annual Meeting of the American Academy of Medicine which will hold its sessions in the Hopkins Hall, Johns Hopkins University, in this City on Oct. 28th and 29th, has been received at this office. The following papers will be read:

"The Relation of the Medical Colleges to Preliminary Education." By Peter D. Keyser, A. M., M. D., of Philadelphia, Pa.

"The Examination of Applicants for License to Practice, a Means of Raising the Standard of Medical Education." By Eddard Jackson, A. M., M. D., of Philadelphia, Pa.

"The Rôle of Bacteria in Infectious Diseases." By Henry O. Marcy, A. M., M. D., of Boston, Mass.

"The Trade Aspect of Medicine." By Albert H. Gihon, A. M., M. D., Medical Director, U. S. Navy.

"The Induction Coil; Its Varieties and the Differential Indications for their Use." By A. D. Rockwell, A. M., M. D., of New York, N. Y.

Address, by Benjamin Lee, A. M., M. D., of Philadelphia, Pa., President, on "Differentiation the Test of Civilization; The Specialist and his Education."

"The Teachings Derived from Observations in 137 Abdominal Sections." By R. Stansbury Sutton, A. M., M. D., LL. D., of Pittsburgh, Pa.

"Some Comparative Results of Treatment of Chronic Articular Osteitis of the Hip." By Virgil P. Gibney, A. M., M. D., of New York, N. Y.

"The Place of the Physician in Literature." By Charles C. Bombaugh, A. M., M. D., of Baltimore, Md.

"The Aim in Treatment of Angular Curvature of the Spine." By T. M. Ludlow Chrystie, A. M., M. D., of New York, N. Y.

"Physiology in Its More Public Relations" (Public health, physical culture, family institution, true civilization). By N. Allen, A. M., M. D., of Lowell, Mass.

"Statistics of Glaucoma." By Herman Knapp, A. M., M. D., of New York, N. Y.

"Specialties and Their Relation to the Medical Profession." By L. Duncan Bulkley, A. M., M. D., of New York, N. Y.

"Report on Laws Regulating the Practice of Medicine in the United States and Canada." By Richard J. Dunglison, A. M., M. D., of Philadelphia, Pa., and H. O. Marcy, A. M., M. D., of Boston, Mass.

The objects of the Academy are thus defined by the constitution:

1. To bring those who are Alumni of Classical, Scientific and Medical Schools into closer relations with each other.

2. To encourage young men to pursue regular courses of study in Classical and Scientific institutions before entering upon the study of Medicine.

3. To extend the bounds of Medical science, to elevate the profession, to relieve human suffering, and to prevent disease.

The Membership of the Academy shall consist of Fellows and Honorary Members.

Sec. II. The Fellows shall be Alumni of respectable institutions of learning, having received therefrom—

1. The degree of Bachelor of Arts, or Master of Arts, after a systematic course of study, preparatory and collegiate.

2. The degree of Doctor of Medicine, after a regular course of study, not less than three years, under the direction and instruction of preceptors and professors.

3. When a candidate is an alumnus of a foreign institution not granting the degree of Bachelor of Arts or Master of Arts, a certificate or certificates, which shall be considered as equivalent by the Council and Academy, may be accepted in lieu thereof, provided he shall have subsequently received the degree of Doctor of Medicine.

5. The Fellows shall also have had an experience of three years in the Practice of Medicine, in one or more of its recognized departments, and shall have a good moral and professional character.

Sec. III. Honorary members shall consist of gentlemen in the medical profession, at home or abroad, who have made important contributions to medical science.

Sec. IV. The honorary members shall not exceed five for every one hundred Fellows. They shall be entitled to attend the meetings of the Academy, and to participate in the proceedings, but shall have no right to vote or to hold office.

The annual collation will take place at the Athenæum Club, corner of Charles and Franklin streets, Baltimore, on Tuesday evening, October 28th, at half-past nine o'clock, immediately after the President's address. Fellows desiring to participate will forward two dollars to Dr. C. C. Bombaugh, P. O. box 498, Baltimore, Maryland.

Acute Vomiting in Infancy Treated by Nutrient Enemata.—A. Withers Green, M.R.C.S., L.R.C.P., London, reports the following case in *Lond. Med. Times*, September 27th: H. Edward H. is a rickety, bottle-fed child 7 months old. On September 6th it had a bottle of milk which was somewhat sour, but went to rest as usual. During the night the child was seized with vomiting and diarrhœa. I was called to see it at 5 A. M. On the 7th I found the eyes sunken into their sockets, great pallor and listlessness. The infant was cutting its right upper central incisor. I lanced the gum and ordered one teaspoonful of castor oil. After the oil had acted the diarrhœa ceased, but the sickness was unabated. Milk, whether fresh cows', condensed, or artificially prepared human milk, was not retained, neither was barley water, rice water, beef tea nor raw beef juice, in fact everything was pumped up unaltered, sometimes seeming hardly to have got into the stomach. By the evening of the 8th the child had been some hours passively convulsed or else very restless, extremities at times cold and fontanelle very depressed. Lime water, bismuth, hyd. c. creta, gr. ¼ every four hours, tinct. opii minim ⅛, tinct. iodi minim ¼, creosote minim $\frac{1}{12}$, glycerinum boracis, all seemed useless. Nutrient enemata were now commenced, after my evening visit on the 8th, and were continued until the morning of the 12th, as nearly as possible every two hours. The enemata were in amount two tablespoonfuls with a half teaspoonful of brandy in each, and consisted sometimes of condensed, or fresh cows' or artificially prepared human milk, sometimes of beef tea of different kinds all slightly warm. After a few times the child kept quite quiet while the injections were being given, and seemed revived after them. None of them were returned. Since the nutrient enemata were commenced the bowels have acted twice daily, gradually getting less slimy, and more natural. For rather more than three days and three nights no nourishment was taken by the mouth, the lips being moistened with brandy and milk. On the 9th a warm vinegar and water compress was kept most of the day round the waist, and since the 9th one tablespoonful of cod-liver oil was rubbed into the chest after washing the child each morning. During the night of the 11th beef tea, made with Liebig's extract of meat, was kept on the stomach, one tablespoonful about every four hours. On the same day the child smiled and seemed hungry, but was sick if more than a small quantity was given at a time. From the time the stomach began to retain beef tea, bismuthi subnit. gr. ½, with tinct. opii minim ⅛ was given when any sickness or retching occurred and seemed to do good. On the 13th half a teaspoonful of cod-liver oil began to be given three times a day by the mouth. On the 14th half a teaspoonful of steel wine began to be taken as well. Though the beef tea was the first thing retained by the stomach the child soon began to refuse it, preferring its bottle of cows' milk (boiled) and water. The parents consider the issue highly satisfactory as they thought their child was for some days a little better than a corpse while now it is daily gaining strength and vigour.

Cholecystotomy; with a Report of Two New Cases, a Table of all the Hitherto Reported Cases, and Remarks.—In *The American Journal of Medical Sciences* for October, 1884, Drs. J. H. Musser and W. W. Keen publish a carefully prepared and instructive article on cholecystotomy, in which they relate two new cases, with a table of all the hitherto reported cases, thirty-five in number.

The first case was that of a man, æt. 32, who had had attacks of biliary colic for five years, followed by jaundice, until he was reduced in strength, and had chills and fever threatening life. Dr. Keen attempted cholecystotomy, the incision being made over a region of dulness believed to be the gall-bladder. This dulness was found to be due to an inflammatory mass, which glued together the gall-bladder, colon and intestine. No stone could be detected. The wound was closed, and recovery ultimately followed a course of Hathorn water at Saratoga.

The second case was that of a man, æt. 31, with acute gastro-intestinal catarrh, followed by jaundice, enlarged gall-bladder, and symptoms of internal suppuration. The enlargement of the gall-bladder was demonstrated by the hypodermic needle, but the fluid was not bile. Dr. Keen performed cholecystotomy, using a large hollow-handled spatula to drain off the twenty ounces of fluid contained in the gall-bladder. The gall-bladder was found to be seven

inches in depth, but neither by finger nor probe could any gall-stone or the orifice of the duct be found. A biliary fistula was established, and bile was discharged through it the next day. The patient died a week later of exhaustion. The post-mortem examination revealed inflammatory closure of the cystic and common ducts at the mouth of the gall-bladder and at the duodenum.

Dr. Musser, in his medical comments, analyzes at length the causes, symptoms and diagnosis of biliary obstruction, under the heads of jaundice, tumor, pain, and suppuration, especially in relation to gall-stones and other foreign bodies and diseases of the ducts. He points out the means by which a just conclusion may be reached, and that cholecystotomy should be resorted to early in the case rather than wait till the blood is disorganized and the liver softened and made functionally useless. Especially is this true in view of the low mortality of the operation, there having been (excluding Gross's incidental case) only nine deaths in thirty-four operations, and of the fact that Mr. Tait has done thirteen operations, by far a larger number than any other operator, all of which have been successful.

In his surgical comments, Dr. Keen discusses the surgical means of diagnosis by aspiration, with or without probing through the canula, and by acupuncture, both of which, when properly done, he commends. He also strongly urges an early laparotomy, followed at once by cholecystotomy, if found advisable, and condemns the attempt to provoke or to wait for adhesions. Indeed, upon this disregard of adhesions hinges the whole of our modern progress in abdominal surgery. He points out that to Bobbs, of Indiana, and to Sims, both American surgeons, is due the credit of first performing and practically perfecting the operation. He advises the formation of a biliary fistula, rather than sewing up the gall-bladder, and disapproves, as a rule, of removal of the gall-bladder, as adding a new and usually a needless danger.

Antiseptic Uterine Injections in Puerperal Septicæmia.—In the *Jour. Amer. Med. Assoc.*, of Aug. 2nd, 1884, Dr. Madison Reece writes of the value of antiseptic uterine injections in puerperal septicæmia and cites several interesting cases of women snatched from the very jaws of death by their persistent use. He uses a sol. of permanganate of potash, two drams to the half gallon of warm water and a strongly carbolized water. An injection is continued until the water comes away both odorless and colorless, and it is repeated according to the requirements of the case. A marked fall of temperature always follows their use. Dr. R. believes that puerperal septicæmia is often caused by infectious material from the finger-nails of the obstetrician and says he will hail with delight the day when all puerperal women shall be treated by women obstetricians who attend exclusively to that branch of medicine. He uses in all cases 24 hours after confinement a vaginal injection of carbolized water, as affording relief to the patient, besides thoroughly cleansing the parts. Should the temperature rise the injection is made intra-uterine. For vaginal injections a pipe is recommended with the hole at the end closed as uterine colic is sometimes caused by the water being inadvertently thrown through the patulous os into the cavity of the uterus.

Officers of the American Gynecological Society for the Ensuing Year.—At the recent meeting of the American Gynecological Society held in Chicago, the following officers were elected: *President*, William T. Howard, Baltimore, Md.; *Vice-Presidents*, W. L. Richardson, Boston, Mass., and Paul F. Mundé, New York; *Secretary*, Frank P. Foster, New York; *Treasurer*, Matthew D. Mann, Buffalo, N. Y.; *Members of Council*, A. Reeves Jackson, Chicago, Ills., H. P. C. Wilson, Baltimore, Md., Joseph Tabor Johnson, Washington, D. C., Ely Van De Warker, Syracuse, N. Y. The next meeting will take place at Washington, D. C., on the third Tuesday in September, 1885.

The President elect, Prof. W. T. Howard, is a resident of this City where he is greatly esteemed, not only for his eminent skill and ability in his profession, but for high moral character and genuine worth. In the elevation of Prof. Howard to the Presidency, the Gynecological Society has conformed to its regular custom of honoring its most distinguished and able members.

The Rectum Considered as a Receptacle for the Accumulation and Retention of the Excremental Matter.—Dr. Wm. Bodenhamer, of New York, in an exhaustive paper (*Med. Record*, Sept. 20th,

1884) combats the theory elaborated by Mr. O'Beirn, of Dublin, that the sigmoid flexure of the colon is the true receptive and retentive organ for the alvine excrements, while the rectum is merely an expulsive organ. Dr. B.'s arguments are based (1) upon the anatomical characteristics of the parts in question, and (2) upon observations on both the living body and the cadaver. His conclusion that the rectum is not merely an expulsive canal, but is the true *terminal depot* of the alimentary tract, a receptive, retentive and expulsive organ, is well supported by lucid arguments.

Medical Items.

The *British Journal of Homœopathy*, one of the oldest journals of its class, will cease to be published after this year.=Dr. Thaddeus Johnson has resigned the Chair of Surgery in the Southern Medical College on account of his health. He is succeeded by Dr. J. McF. Gaston, formerly of Columbia, S. C.=The London Health Exhibition has been a financial success. The council of the Exhibition have handed £4,000 to the Lord Mayor for distribution among the London hospitals.=The *Atlanta Med. and Surg. Journal* says that a suit has been entered against the Georgia Eclectic Medical College, of that city, for fifteen thousand dollars for violating the State law by graduating students who had not attended two full courses of lectures.=A correspondent of the *Allgemeine Wiener Medicinische Zeitung* referring to the present inadequate salary of Dr. Koch, says: "It seems incredible, but yet is true, that the famous *Bacillenvater* Koch, whose name is received with general recognition to the ends of earth, received only a salary of 2,000 thalers, with a personal addition of a hundred marks."=Dr. Koch, it was reported some days ago, had recoived a call to the University of Leipsic as the successor of the late Prof. Cohnheim. The *Cologne Gazette* is glad to be able to state that Dr. Koch has declined this honorable call and resolved to stay in Berlin. It is probable that he will soon be appointed Professor of Hygiene in Berlin University.—*Lond. Med. Times and Gaz.*=Klein has been testing the effects of the comma bacillus on himself. The *Brit. Med. Journal* suggests that in order to meet all the requirements of the case, he get his cultivations from Koch, and test them after having taken a croton-oil purge, and then under like conditions swallowing some of the cholera excreta.=At the Clinical Society of London, tea and coffee are served before the meetings—from 8 to 9 P. M.=The Nebraska State Medical Society has made arrangements for securing a preliminary education to all persons intending to study medicine with physicians of the state. No member of the society will accept a student of medicine unless he has given evidence of having a certain amount of preliminary education.=In one of the lectures of the late Prof. Rogers, he stated that an antidote for arsenic almost as good as the hydrated oxide, may be made by mixing the official chloride of iron and bicarbonate of sodium, and there are almost always at hand.—*College and Clinic Record.*

Official List of Changes in the Stations and Duties of Officers Serving in the Medical Department, U. S. Army, from Oct. 7th, 1884, to Oct. 13th, 1884:

McKee, Jas. C., Major and Surgeon, granted leave of absence for one month with permission to apply at Division Headquarters for one month's extension.

Happersett, John C. G., Major and Surgeon, will be relieved from duty in Department of the East and ordered for duty at Willet's Point, New York.

Woodruff, Ezra, Captain and Assistant Surgeon, granted leave of absence for four months.

Loring, Leonard Y, Captain and Assistant Surgeon, from Department East to Department California.

Harvey, Philip F., Captain and Assistant Surgeon, from Department of Dakota to duty in Attending Surgeon's Office, Washington, D. C., relieving Robert W. Shufeldt, Captain and Assistant Surgeon, who, on being releived, will report to Commanding Gen'l, Dep't of Missouri, for duty.

Powell, J. L., Captain and Assistant Surgeon, granted leave of absence for one month, on Surgeon's certificate of disability.

Spencer, Wm. G., Captain and Assistant Surgeon, granted leave of absence for one month.

McCreery, Geo., First Lieutenant and Assistant Surgeon, assigned to duty at Fort Meade, D. T.

Taylor, A. W., First Lieutenant and Assistant Surgeon, assigned to duty at Fort Omaha, Neb.

Original Papers.

A CASE OF FRUEHJAHR-CATARRH. *

BY HOWARD F. HANSELL, M. D.

Michael Wood, æt. 12, applied at the Southwestern Hospital, in the early part of July, on account of inflammation of the eyes. His father, who accompanied him, stated that every spring, as soon as the cold weather had gone, Michael's eyes began to grow red. This statement is indefinite, but as far as I can learn, is strictly true, for its advent is simultaneous with the onset of warm weather, whether it be in March or delayed until May. The eyes slowly grew worse during four weeks, when the acme was reached. The patient should be seen in the middle of the summer; then the disease is at its height, and the eyes present a remarkable appearance. However, the fall is not yet far enough advanced to have obliterated all the characteristic signs of his affection. These peculiarities are described by Arlt in his "Klinische Darstellung des Auges," and by Saemisch in Graefe and Saemisch's "Handbuch der Augenheilkunde," in almost the same words. There is an elevation of the edge of the cornea, caused by infiltration of a gray, yellow pulpy mass. On the limbus or margin are found small, gland-like, solid, light gray or yellow, somewhat transparent bodies, which appear on the nasal or temporal side, or both together, and slowly encroach on the bulbar conjunctiva. As they grow along the edge, they advance on the transparent part of the cornea, and are sharply lined from it, while they imperceptibly fade into the conjunctiva. They are tough, immovable deposits, and do not yield to the probe. The conjunctiva in pronounced cases has lost its transparency, and its enlarged vessels run into the elevations on the cornea. The color of the conjunctiva differs from that of inflammation, as well as from the normal; it is steamy, dull, pale red, wanting the freshness and liveliness of acute catarrh. This is due to the light serous infiltration of the part.

This condition of the conjunctiva is called by German authors "Frühjahr-Catarrh," and is without a name in English. The title is a bad one, because the affection is not a catarrh, neither does it exist only in the spring. It is a periodic or annual hypertrophy of the conjunctiva and the neighboring section of the cornea. An acute catarrh may be associated with it, as was in this case during part of July. This rapidly disappeared under treatment. The hypertrophy, however, resisted all treatment. For several weeks I kept the eyes under atropia, and three times each week I applied a crystal of sulphate of copper to the lids without the slightest benefit. Since August 1st the treatment has been stopped. The disease continues to appear regularly at the beginning of warm weather, reaches its maximum intensity in four weeks, disappears after the first snow, leaving no trace. This is repeated for a period usually of four years, although it may run on many years longer.

Treatment has little or no effect; the only references which I have been able to find are the two mentioned above, although I have searched the works of Stelwag, Carter, Schweigger, Jacobson and Soelberg Wells

* Read before the Philadelphia County Medical Society, September 17th, 1884.

DISCUSSION ON FRUEHJAHR-CATARRH.

Dr. E. O. Shakespeare: I have seen this affection a few times. It is one which I have supposed to be peculiar to the spring of the year, having in my mind two cases that so occurred, but I have seen one which appeared semi-annually. As to the pathology, I am at a loss to form an adequate understanding.

Dr. Sajous: I would like to know if there was much pruritus.

Dr. Hansell: These cases occur very rarely in this country. Dr. Harlan, to whom I sent the case, in his many years of clinical experience at Wills' Hospital had never seen a single instance of it. Neither have I been able to find any reference to it among American writers. In answer to the question as to its connection with hay fever, I may say that this disease has a different history and pathology, and in the reported cases has been associated with no other affection. It bears a closer resemblance to pterygium than to any other eye disease.

DISCUSSION ON CASE OF REMOVAL OF FOREIGN BODY FROM THE EYE.

Dr. E. O. Shakespeare: This is a case of more than ordinary interest from many

aspects, and Dr. Landesberg has rightly called it a triumph of conservative surgery. It is well known that a foreign body may remain in place many months or years before showing sympathetic irritation. The whole case, while an illustration of the benefits of conservative surgery, also shows the advisability of gaining the patient's consent to enucleation, if necessary, before the search has been begun. These cases may, however, cause, in the minds of the laity and members of the general profession, erroneous impressions of the absence of danger from foreign bodies in the eye.

Dr. Roberts: We should give Dr. Landesberg great credit for his acumen in supposing that he could remove the foreign body. I always warn patients who come to me with lost vision from bodies in the posterior portion of the eyeball, of the danger of future sympathetic ophthalmitis, advise them to have enucleation performed, unless they live in the portions of the country where skilled ophthalmologists are found. This case will incline me to make exploratory procedures before enucleation.

Dr. W. S. Stewart: What was the nature and size of the body?

Dr. Landesberg, in closing the discussion, said: I take exception to the practice of all those surgeons who resort, without further delay, to enucleation in instances of injury to the eyeball with loss of vision. In all cases in which there is no foreign body in the interior of the globe, we have to abstain from operative interference, and watch the eye with care. There is no danger in waiting. Sympathetic irritation is not likely to occur immediately after the injury. Enucleation itself is not so harmless as it is generally represented in text-books. It may sometimes give rise to sympathetic irritation, and I would impress this fact upon the general practitioner. It is not indifferent to the patient whether his blind eye is removed or not. A blind eye looks, in the greatest majority of cases, better than the artificial one, and we have to give to the patient the benefit, as long as it is compatible with the safety of the other eye. It is a matter of æsthetics. If a foreign body has penetrated the eyeball, the first indication is to remove it with an electro-magnet. If it cannot be found, and there is traumatic cataract, I would at once remove the latter—the body may be imbedded in it. Should this removal fail, I advise enucleation at the same sitting. The foreign body extracted in this case was about 3 mm. long, and of metal.

DISCUSSION ON METHOD OF CURING CROOKED NOSES.

Dr. Jurist: I have been so unfortunate as to have operated on a few cases of divided septum, but generally found that after two or three months the septum had returned to its former position. I hope Dr. Roberts will state whether his cases remained permanently straight.

Dr. Roberts: If free incisions are made, the deviation ought not to return. If, after operation, the parts are held in place two weeks, the chances are that they will remain in the new position as surely as after the original accident.

Dr. Jurist: I would not like Dr. Roberts to understand that I did not fracture the septum. I do so in all cases—using the stellate punch—and do not rely simply on a plug.

DISCUSSION ON CASE OF POISONING BY SOOTHING SYRUP.

Dr. Joseph D. Schoales: I remember a similar case—a child sixteen months old—with which I sat up a whole night. It recovered under a treatment for opium narcosis. In another child, five months old, the symptoms resembled those produced by a teaspoonful of laudanum. Fifteen drops of the syrup had been given. Neither case resulted in death.

Dr. Hirsh: I recall a case in which trouble and annoyance had arisen from a physician's prescription being marked "poison" by the druggist. This occurred after the recent fiasco in which such notice was ordered in each case by the Coroner's deputy, an interpretation of the State poison law since reversed by the court. An explanation was necessary before the patient consented to take the medicine and the physician back into the family.

NOTES ON A CASE OF POISONING FROM MRS. WINSLOW'S SOOTHING SYRUP.

BY A. B. HIRSH, M. D.

With the object of adding my quota to the list of serious accidents resulting from

* Read before the Philadelphia County Medical Society, September 17th, 1884.

the indiscriminate sale of secret medical preparations, I have gathered the notes of the following case:

Mrs. A. H. L. took her 20-months-old boy to visit some friends, and, while there, they (all unknown to her) fed him some unpeeled apple and other indigestible material. Being colicky all that night and next morning, she was persuaded by a "friend" to purchase a two-ounce vial of the nostrum sold as "Mrs. Winslow's Soothing Syrup," and of this gave him half teaspoonful doses, as the directions called for, although she insists half of each quantity was spilt through his struggling.

He took, therefore, the first dose at 4 o'clock on Sunday afternoon (Aug. 24), and, there being no effect, another at 8; then dozing but not sleeping from this time till 3 next morning, the pain starting him again to whining, he was dosed at 5; still crying on, three-quarters of an hour later the final similar amount was administered. The mother soon became alarmed at the marked stupor which had now set in. He would touch none of the breakfast placed before him, Mrs. L. said: although sitting upright in his high chair, his head hung listlessly and he recognized nobody.

I saw him at 7.45 A. M. and found marked symptoms present of poisoning by some narcotic drug. The pupil was contracted down to the typical pin-head; stupor was unmistakable; respiration was very slow, gasping and shallow, while at irregular intervals he would take two or three rapidly succeeding deep sighs; the pulse was rapid and small; the extremities were cold throughout the case. Taking all these symptoms into consideration, and the fact that the breath bore the peculiar odor of an opiate, I felt warranted in treating the case for one of poisoning by some preparation or derivative of that drug.

The stomach and bowels were emptied at once; frequent cold sponging was ordered, with wet cloths placed on the nape of the neck whenever great trouble existed in keeping him awake. Tr. Belladonæ was given hourly in aqueous solution. The parents were directed to keep him awake, by all means.

By noon he would begin to lift the eyelids a little, but relapsed into a sort of doze by 2 P. M. Despite all their efforts, he fell once more into a stupor by 6. Calling about this time, I insisted on the mechanical exercises being continued, feeling encouraged by the somewhat improved breathing and that I succeeded a little while later in arousing him. As the pupil had now slowly begun to dilate, the medicine was ordered to be given every half hour, or twice as often as before. By 11 he began to lighten up, and, on calling half an hour later, I found him languidly trying to push his ball around the table upon which he sat; the pupils were widely dilated and respiration free. He was allowed to sleep, with slight interruptions from midnight until 6 A. M., after which the child showed his great thirst by frequent demands for ice-water. Incoordination of the voluntary muscles now became noticeable and continued until next morning. A typical belladonna rash was now likewise beautifully shown, also to disappear in time. He slept for two hours about noon, being exceedingly irritable afterwards, but excepting the use of a tonic, required no other treatment.

As stated in the beginning of the notes, this case is merely placed on record to help expose an existing evil, believing that continuous agitation will finally induce the intelligent public to demand the regulation of the sale of patent medicines: a fact concerning which there never was any doubt in the profession.

A fatal result would inevitably have here occurred had no treatment been instituted, and I feel convinced that many such cases happen in our midst, which should be reported; incidentally conversing with both Drs. Schoales and Blackwood, I heard of such occurring in their respective practices, and should be glad to hear more fully of those from the gentlemen.

The case is the more pertinent at this time when any fakir or shopkeeper may legally retail unlabeled poisons in the guise of patent medicines, while one of our inconsistent laws is now being so interpreted as to inform the patient that, in very many cases, his doctor has prescribed him medicine containing poison.

Menthol Pencils.—These pencils or cones, whose therapeutic value is very limited at best, have become so popular that great adulterations or substitutions are now practiced. The ordinary oil of peppermint is probably substituted for the menthol, in large part at least.—*Med. Record.*

A CASE OF DUPUYTREN'S CONTRACTION OF THE FINGERS. *

POLYCLINIC SERVICE OF CHAS. K. MILLS, M. D.

Dr. W. W. Keen, in one of the most valuable papers on "Dupuytren's Contraction" † published in recent years, states that he was able to find, exclusive of his own cases, twenty-six in number, only ninety-five other recorded cases. It has been, therefore, thought worth while to put the following additional case briefly on record. The history points to a rheumatic or rheumatico-gouty origin of the affection.

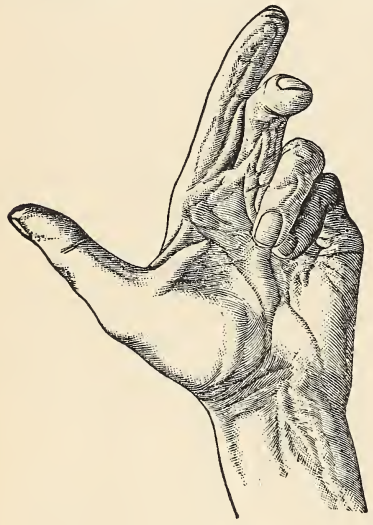


FIG. 1.



FIG. 2. ‡

H. B., æt. 70, married, born in Ireland, had one sister with a rheumatic history. His father died of pleurisy, and he did not know the cause of his mother's death, or any details of the health history of either parent. He denied syphilis positively, and never injured his hands in any way. He has kept a trimming store for twenty years, and before that time was in the grocery business. He was in California thirty-five years ago, being one of the "forty-niners." He slept in a tent, and mined for gold for twenty months, but apparently did not suffer, or at least not immediately, from the exposure. For fifteen years he has suffered with rheumatic or rheumatico-gouty pains.

Twelve years ago the little finger of the left hand began to curve inward; contraction soon followed in the ring, and later in the middle finger. The little finger of the right hand also gradually contracted.

When he presented himself at the Polyclinic, the joints of his hands and fingers were found to be enlarged. The little finger of the right was strongly flexed; but the trouble was much more marked and extensive in the left hand, the little and ring fingers being drawn in so as to almost touch the palm of the hand, the second finger also being much contracted. (See fig. 1.) Ridges were found running to these fingers across the palm. The general strength of both upper extremities was about the same. He had never had any special treatment for the contractions.

Subcutaneous incisions were made into the palmar fascia and its cord-like prolongations, by Dr. John B. Roberts. In all, eight incisions were made at a single sitting. The hand was straightened, and kept in a digital splint for six weeks, manipulations also being used. The splint was then used only at nights, and galvanism was applied in the form of the continuous current through the hand, and the current interrupted to the interossei and other muscles. The hand is now capable of being straightened, as shown in fig. 2, and he also has much improved use of it in flexion and extension.

* Reported by DR. WM. MUIR ANGNEY, Clinical Ass't. Read before the Philadelphia County Medical Society, September 17th, 1884.

† "The Etiology and Pathology of Dupuytren's Contraction of the Fingers." A paper read before the Philadelphia County Medical Society. By W. W. Keen, M. D.—*Philadelphia Medical Times*, March 11th, 1882.

‡ These cuts are furnished by the courtesy of P. Blakiston & Co., of Philadelphia.

DISCUSSION ON CASE OF DUPUYTREN'S CONTRACTION.

Dr. Mills: Many surgeons refer all such cases to traumatism. The chief interest in them is the pathology and causation. I believe that most cases of true Dupuytren's contraction are due to rheumatism or rheumatic gout. Hysterical contraction sometimes resembles it, but continuous nerve pressure on the median nerve will relax this form, although it will subsequently return. Some of the cases called athetosis also resemble it. Here there were no ridges across the palm, and the contractions may be readily overcome temporarily.

Dr. John B. Roberts: This case shows facts in opposition to the theory that adopts traumatism as a causation, for he now is under treatment for chronic arthritis of the fingers. It is a pity that the name of Dupuytren is given to this form of contraction, for if we call it contraction of the palmar fascia we at once separate it from the contraction of tendons. A proof of its rheumatic origin is the frequency of its occurrence in those who do no manual labor.

Dr. Angney: The history of the case shows no traumatism. The man had been a shopkeeper and had the trouble ten or twelve years before consulting a physician. Rheumatism and gout were concerned in the etiology.

Society Reports.

OBSTETRICAL SOCIETY OF PHILADELPHIA.

STATED MEETING, HELD OCTOBER 2, 1884.

(*Specially reported for Md. Med. Journ.*).

[*Continued from Page 492.*]

The President, R. A. CLEEMANN, M. D., in the Chair.

RAPID DILATATION OF THE UTERINE CANAL. By *Wm. Goodell, M. D.*—For many years I enlarged or straightened the uterine canal, according to the requirements of the case, either by tents or by Sims' operation, and preferably by the former. Having had several serious warnings in the shape of inflammation following these operations, I began to perform them with fear and trembling. Yet nothing untoward happened until the year 1878, when two grievous mishaps befell me.

A charming young lady, the centre of a large circle of admiring friends, came from a neighboring State to consult me about a dysmenorrhœa, which grew worse and worse every year. The cervix was so bent forward, and the stenosis of its canal *per se* as well as by angulation was so marked that I unhesitatingly performed Sims' operation. Within a few days septicæmia set in, soon the parotid glands swelled up, and on the ninth day she died. True it is, that, at the same time two piles also were tied, but this latter operation I had and have performed so many times with impunity that I was, and am still, disposed to attribute the blood poisoning to traumatism of the cervix and not to that of the rectum. Hardly had I time to recover from this bitter blow when a case of exhausting menorrhagia fell into my hands. The lady was the young bride of a husband well advanced in life, who doted on her as only old men dote on much younger wives. I dilated the cervical canal with tents and curetted many vegetations from the endometrium. A furious peritonitis set in, and in less than three days this young wife lay dead, and the husband was frantic with grief.

The anguish which I felt at the death of these two ladies, and the heart rending scenes which I witnessed at their bedside —scenes which I cannot now recall without emotion—urged me to try any remedy that gave promise of efficiency combined with greater safety. In the search for a substitute, I tried rapid dilatation, which Ellinger and others had proposed, and since that year—that *annus irae*—I have not once performed Sims' operation for dysmenorrhœa, and I have so narrowed the field for the use of tents that I now very rarely resort to them. In short, rapid dilatation has proved, in my hands, so safe and so efficient an operation that I wish to urge its claims before this Society.

The instruments which I would recommend are two Ellinger dilators of different sizes. These are the best on account of the parallel action af their blades. The smaller of these dilators has slender blades and it pilots the way for the other, which is more powerful and with blades that do not feather. I have had the beaks of these dilators changed from an obtuse angle to a slight curve, so that it can be reversed within the womb. The lighter instrument needs only a rachet in the handles, but the stronger one should have a screw with which to bring the handles together. Lest the beak

should hit the fundus uteri and seriously injure it when the instrument is opened, the blades are made no longer than two inches, and are armed with a shoulder which prevents further penetration. The larger instrument opens to an outside width of one and a half inches, and it has a graduated arc in the handles by which the divergence of the blades can be read off. The instruments which I now exhibit to you, and which I can recommend highly, have been made under my supervision by Messrs. J. H. Gemrig & Son, of this city.

In a case of dysmenorrhœa or of sterility from flexion or from stenosis, my mode of performing the operation of rapid dilatation is as follows: The patient is thoroughly anæsthetized, and a suppository containing one grain of the aqueous extract of opium is slipped into the rectum. She is then placed on her back and drawn to the edge of the bed, the knee being supported by her nurse. The light must be good so that the operator may clearly see what he is about. By the aid of a strong tenaculum, applied through my bivalve speculum, the cervix is steadied and the smaller dilator is introduced as far as it will go. Upon gently stretching open that portion of the canal which it occupies, the stricture above so yields that when the instrument is closed it can be made to pass up higher. Thus by repetitions of this manœuvre, little by little, in a few minutes' time, a cervical canal is tunnelled out which before could not admit the finest probe. Should the os externum be a mere pin-hole or be too small to admit the beak of the dilator, it is enlarged by the closed blades of a straight pair of scissors which are introduced with a boring motion. As soon as the cavity of the womb is gained the handles are brought together. The small dilator being now withdrawn the larger one is introduced and the handles are then slowly screwed together. If the flexion be very marked, this instrument after being withdrawn should be re-introduced with its curve reversed to that of the flexion and the final dilatation then made. But in doing this the operator must take good care not to rotate the womb on its axis and not to mistake the twist for a reversal of flexion. The ether is now withheld and the dilator kept in situ until the patient begins to flinch, when the instrument is closed and removed. A few drops of blood trickle out of the os. Occasionally a slight flow of blood will last for several days after the operation, simulating the menstrual flux. Often this flux is precipitated or renewed if the operation follows or precedes it too soon. The best time for dilatation is, therefore, midway between two monthly periods.

When compared with the cutting operation this one looks like rough usage, yet the woman rarely needs more than two or three suppositories, and complains merely of soreness for one or two days. To forestall any tendency to metritis she is kept in bed until all tenderness has disappeared, Pain is met by rectal suppositories of opium and by large poultices laid over the abdomen. I have seen slight pelvic disturbance arise from this operation, but it has always been readily controlled and has not given alarm.

In the great majority of cases I dilate the canal, not to the fullest capacity of the instrument, but to one and a quarter inches. Sometimes in an infantile cervix, which does not readily yield and might give way, the handles are not screwed down more than three-quarters of an inch or an inch. Tearing of the cervix has happened in two of my cases. In one, that of a virgin, the cervix was split half way down to the vaginal junction. The other case was that of a multipara, whose uterine canal had been nearly closed up by applications of silver nitrate, made by her physician with the view of curing what he supposed was an "ulceration of the os," but which was a bilateral laceration. The tissues rendered cicatricial and brittle by the caustic were torn by the dilator for about half an inch on the right side also. Here the hemorrhage was free enough to need stypic applications and a tampon. I could have stopped it by wire sutures, but this was not done as it would have defeated the object of the operation.

For slight dilatations, such as for the office treatment of anteflexions and of stenosis or for the introduction of the curette, or of the applicator armed with cotton, the more delicate instrument is quite strong enough, and an anæsthetic is not needed. Sometimes in a very sharply anteflexed womb the dilator cannot be made to pass the os internum. This difficulty is overcome by first passing in a surgeon's probe, and then, along it as a guide, the dilator.

After a forcible dilatation, under ether, the

cervical canal rarely returns to its previously angularor contracted condition. Since lateral extension of elastic bodies antagonizes their length, the cervix shortens and widens; and the plasma provisionally thrown out by the submucous lesions sustained by the dilated part serves still further to thicken and stiffen its tissues. In other words, the stem-like neck of the pear-shaped womb is shortened, widened, strengthened and straightened. Hence, for straightening out anteflexed or congenitally retroflexed wombs, and for dilating and shortening the canal in cases of sterility or dysmenorrhœa, arising from stenosis or from a conical cervix, the dilator will be found a most efficient instrument. In its results it is not infallible; I have twice been obliged to repeat the operation, and would like to have done so in several other cases, had the women permitted it. In a very few instances I have been forced, as a final resort, to nick a pin-hole os externum; but I had not then learned how far I could safely stretch open the uterine canal, and the operation of dilatation was not so efficiently performed by me as it is now through a larger and riper experience.

But it is not to cases of dysmenorrhœa that I limit the operation of rapid dilatation. As stated before, I use it to stretch open the canal for the admission of the curette and of sponge-tents, or for the purpose of making applications to the uterine cavity. In cases needing the irrigation of the uterine cavity, I first dilate the canal with this instrument and introduce the nozzle of the syringe between the separated blades. This gives a free avenue for the escape of the liquid, and robs of its dangers this form of intra-uterine medication. I also resort to the dilator in order to explore the womb with the finger. For instance, in any given case of menorrhagia, in which a polypus or some other uterine growth is suspected, instead of using tents, I put the woman under an anæsthetic, and after the rapid dilatation of the cervical canal to the utmost capacity of the instrument, viz: one and a half inches, am enabled to pass my finger up to the fundus. This is accomplished either by drawing down and steadying the womb by a volsella forceps; or in thin subjects by forcing the womb down upon the finger through supra-pubic pressure on its fundus. In this way I have over and over again at one sitting discovered a uterine growth, twisted it off and removed it. Usually in these cases I experience more difficulty in removing the polypus or other growth through the small canal, than in twisting it off from its uterine attachment. It often has to be wire-drawn before it can be removed, and sometimes the os uteri has needed a few nicks. Usually when the menorrhagia is free the cervical tissue is so loose that there is no difficulty in the introduction of the index-finger up to the fundus, but sometimes only its tip can be made to pass the os internum. Yet even this limited degree of penetration is commonly quite enough to decide the presence of an inside growth. If it is not enough I invariably search for a growth with a small pair of fenestrated forceps and I have repeatedly seized and removed one, the existence of which was merely suspected. After such operations the uterine cavity is thoroughly washed out with a solution of carbolic acid or of potassium permanganate.

I am sorry to say that I have not kept full records of all my cases of rapid dilatation. For instance, I have never recorded those office cases of dilatation in which ether was not given. Nor has any note been made of cases in which dilatation was performed under ether for curetting,for digital exploration of the endometrium, or for the removal of uterine growths. I have tabulated merely cases of dysmenorrhœa in single or in married women. In the married with but three exceptions, which will be noted, painful menstruation was accompanied by sterility.

Including all the cases of dilatation performed under ether, I must have had over three hundred. I have limited myself to these cases because the use of an anæsthetic implies full dilatation, one in which serious injury, if ever, would most likely be sustained. Yet there has not been a death or a case even of severe inflammation in my practice, and the results have been most satisfactory, far more so than when the cutting operation was performed by me. The following are the statistics of my cases of dysmenorrhœa:

Unmarried	80
Married	88
	168

Of the unmarried, eighteen were unheard

from after the operation, leaving sixty-two from which any data could be obtained. Of these, thirty-eight were cured, seventeen more or less improved and seven not improved at all. Of these seven that were not benefitted by the operation, five subsequently had their ovaries removed; one of them by another physician and four by myself; of the latter one died. In each one, the ovaries had become so altered by cystic or by interstitial degeneration as to make the dysmenorrhœa otherwise incurable. Of the seventeen improved there was one on whom oophorectomy was also performed; for although the dysmenorrhœa was greatly relieved by dilatation, ovarian insanity and menorrhagia were not. The operation was a successful one, and my patient was not only cured of her hemorrhages but she regained her reason. Out of these cases the majority, although not wholly cured, were greatly improved. For example, one of them was formerly bed-ridden during the whole period of her menstrual flux and had then to take large doses of morphia. She also suffered at those times from hematemesis and epistaxis. Since the operation she experiences pain for merely two hours, needs no anodyne, and has lost her ectopic hemorrhages. Her gain in health and flesh has been great. Another one who was wholly crippled by her suffering and made nervous by the dread of them is now a busy nurse. For one hour at every period she suffers a great deal, but she is too much afraid of taking ether to have a second dilatation performed.

Of those cured, two had Sims' operation performed previously without benefit, and were afterwards dilated; two were dilated twice before a cure could be brought about. The history of several cases merits more than a mere allusion. The sufferings of one of my patients at every monthly period had always been great; but while she was at a boarding school they grew so intense as to cause furious delirium at those times. This finally developed into permanent insanity with suicidal impulses. While in this condition she was placed in my hands. After rapid dilatation of the cervical canal, the dysmenorrhœa wholly disappeared. The exemption from pain toned down some of her more extravagant delusions, but she did not wholly regain her reason until a few months afterwards. She is now free from all menstrual pain and in the complete possession of her mental faculties.

A Hebrew lady, whose health had sufsered from dreadful dysmenorrhœa, was improved so much at one sitting that her physician and friends were amazed. Not long afterward he asked me to perform the same operation upon another one of his patients, who was, if anything, worse. Her sufferings were so intense that he wrote: "I fear that another period might kill her;" and urged an immediate operation. The cervix in this case was conical and very dense. Fearing a tearing of the parts I screwed the instrument slowly up to one and a quarter inches and kept up this amount of dilatation for some twenty minutes. The cervix sustained no injury. The canal has since remained patulous and she is free from all menstrual pain.

Of the married, fifty-three were heard from. Of these, thirty-nine were cured, ten were improved and four unimproved. Out of these fifty-three cases, nine were not in a condition to conceive, three of them from fibroid tumors, two of them from destructive applications of nitrate of silver to a lacerated cervix, three from being over forty-one years of age, and one from being a widow. This leaves but forty-four capable of conception; and of these, eight, or a little over eighteen per cent., became pregnant. But the ratio is in fact larger, for several of my patients, fearing pregnancy, employed preventive measures after the operation. Then again: I believe that others who consulted me merely for painful menstruation have not reported their subsequent pregnancies. For instance: Two months ago I learned, through the merest accident, that the wife of a clergyman, whose cervical canal I had dilated six years ago, has since been making up for lost time by giving birth to twins within a year after the operation and later to several other children. She had been married eight years before she came to me and had had her cervical canal dilated by tents and slit up with Peaslee's metrotome by a skillful surgeon. I have also had several cases of pregnancy following office-dilatations of the uterine canal, in which ether was not given, and consequently the lumen of the canal was not much enlarged. But such slight operations were not deemed worthy of record, and they therefore have no statistical value,

Dr. Harris inquired about the danger

of lighting up a former ovaritis by dilatation. The operation is successful but that is its danger.

Dr. Goodell has not hesitated to operate but always uses opium first, and by the time the operation is over the patient is under its influence. He keeps them in bed and under the opium until all tenderness has passed entirely away.

Dr. Wm. Goodell exhibited a Dermoid Cyst of the Right Ovary. A saleswoman, aged 27, was obliged to give up her situation because she found herself unable to stand for any length of time. Her physician discovered a pelvic tumor and called in Dr. Goodell to see her. The diagnosis was obscure but he leaned to a fibroid degeneration of the right ovary. The woman was otherwise well, suffering no pain whatever except when she was in the upright position. The operation was performed on September 8th, and the tumor turned out to be a dermoid cyst. Being enveloped in the broad ligament it was removed with difficulty. It is stuffed with hair and contains a plate of bone, the sharp edge of which was readily felt per vaginam; but it threw no light on the diagnosis as it was mistaken for a fibroid spur. His patient did uniformly well and is now out of bed. He stated that in his experience these tumors are very vulnerable and often resent even so slight an operation as aspiration, inflammation and suppuration quickly setting in. A physician had to-day brought to his office a young woman who had been tapped last June with a trocar. Long hairs and much sebaceous matter escaped through the opening, which had not yet healed up, and it was for this reason that he had been consulted. Upon passing in a uterine sound he struck a foreign body, which, from its density and the sharp click it gave, he was disposed to think was a tooth. He advised dilatation of the fistulous track and the removal of the offending body.

Two Cases of Oophorectomy.—*Dr. Goodell* also exhibited the ovaries which he had removed September 17th and 29th from two patients, who also were doing well. He stated that the amount of tissue change in these ovaries was very slight, and yet the suffering of each patient had been great. One had been an invalid for several years and bed-ridden for the past six months. She had lost much flesh and was always groaning from left ovarian pain unless under the influence of large doses of morphia administered hypodermically. The left ovary was found to be undergoing cystic degeneration, but the right one was so sound that in its removal he was glad to have the backing of Prof. W. S. Playfair, of London, who was present at the operation. For he believed that in most cases needing oophorectomy the results usually showed failures unless both ovaries were removed and the menopause established. Convalescence after the operation had been retarded by great and painful swelling of both parotid glands which developed without any marked rise in the temperature and without acceleration of pulse, and declined without suppuration, behaving exactly like mumps. This made his third case of parotitis following the removal of the ovaries. Not one had ended fatally, and from the very slight febrile movement, he thought that the complication was not symptomatic—as in blood poisoning—but sympathetic, and that a strong kinship, recognized by laymen, existed between the sexual organs and the cervical glands. Since the operation all pelvic pain had ceased.

The other patient was a poor woman aged 30, the mother of seven children. She was sent to him by Dr. Geo. S. Hull, of Chambersburg, Pa. Three years ago she began to suffer from double ovaralgia. The pain never left her wholly, but it began to increase in severity a week before the period, culminated during the flux, and faded off afterwards. Large doses of anodynes were also needed in this case, and she was unable to work. The case was clearly one of ovarian dysmenorrhœa, and he believed she would be permanently cured.

Dr. Chas. H. Thomas asked Dr. Goodell his experience of the result of oophorecto my. What proportion of cases are relieved?

Dr. Goodell could not reply definitely. He inteuds to report his cases before this Society at some future time. In the majority of cases, menstruation ceases and that element of trouble being removed the patient is to that extent always improved. The neurasthenia resulting from previous suffering may remain, but it is far more amenable to treatment after the cause has been taken away. One such case has occurred to him recently. Dysmenorrhœa caused a virtual insanity with a mind constantly wandering. The removal of the ovaries at

once cured the dysmenorrhœa. The patient is now able again to walk, and the mind is improving. The operation removes the major element.

Dr. Thomas has now in his care a case which he thinks typical. The patient is a literary woman, overworked and crushed by family anxiety and depressing emotions. He prescribed rest and feeding. Massage proved of but little use and electricity yielded negative results. Forced feeding became impossible. During menstruation she suffered for two or three hours with moderate dysmenorrhœa. Signs of ovaritis developed with swelling and hardening in the right iliac region. The patient was etherized and a careful examination resulted in finding nothing materially wrong. As soon as anæsthesia was complete all the induration and tumefaction disappeared. There was an ulcer of the rectum and moderate anteflexion of the uterus. The ulcer has since been cured but there is no sensible relief. She suffers from a violent pain in the right ovary extending to the coccyx and across the abdomen; it is cutting in its character at all times, and terribly severe. Formerly it ceased at night but does not now. Hypodermic injections of morphia night and morning are necessary. Riding increases the pain, which often extends down the right leg. She cannot sit up long without increasing the pain, which is evidently getting worse day by day. She has been totally disabled for nearly ten months. Is this pain hysterical? Can it be relieved by oophorectomy?

Dr. Goodell remarked that oophorectomy is, in any case, a question requiring serious consideration. In the cases just related by him, the patients had neither the means nor the time for prolonged treatment. Whenever possible everything should be tried before resorting to an operation. One bed-ridden case under his care, very analogous to Dr. Thomas's, had been relieved by the long continued use of the constant current passed through the affected ovary. A feeble current was kept up for many hours, sometimes for a whole night at a time. The patient ultimately got well, bore several children afterwards, and is now earning her living by teaching.

PHILADELPHIA CLINICAL SOCIETY.

STATED MEETING SEPTEMBER 26TH, 1884.

Dr. Clara Marshall read a report of two cases of Imperforate Anus with Recto-Vaginal Fistulæ in the Adult. The paper was reserved for publication by the reader.

A case of ATRESIA VAGINÆ WITH RETENTION OF MENSES was reported by *Dr. E. E. Montgomery*. Miss F., æt. 44, single, of healthy parentage, was brought to my office July 5th, 1884, by Dr. Sibbald, of Wissahickon, with the following history: She commenced menstruating at 16, and continued without disturbance until her 30th year. Two years previously she had fallen upon a curbstone, receiving quite serious spinal injury, which lasted a year, when she fully recovered. The menstrual periods, which were always regular, lasting from three to four days, normal in quantity and color, at 30 became painful. Since then the pain has been constant and increasing with each period. The discharge now lasts from seven to ten days, is of a dark bloody nature and offensive odor. During the menstrual intervals there is a continuous discharge of "corruption," as she calls it, necessitating the constant wearing of a napkin, and producing excoriation. All of these symptoms have been increasing during the past eight years, and she has been compelled to discontinue work a week or more at a time. She complains of a sensation of weight or pressure in the pelvis attended with severe pain during defecation. There is pain during micturition. Her nervous system has become much affected. Upon examination the vagina was found relaxed and the external parts red and bathed with secretion. The vagina was about two inches long, ending above in a lateral cicatrix. No uterus could be felt. Upon withdrawal the finger was found bathed with a dark, thick, highly offensive discharge. The use of a Sims speculum disclosed a cicatricial line running from side to side across the fundus of the sulcus, just posterior to which the membrane looked thinner. Slight pressure against this with a sound perforated it and was followed by a profuse discharge of broken-down blood and pus. A pair of Ellinger's dilators was then introduced and spread to their full extent; over four ounces of the fluid flowed out. The cavity was then washed out with a carbolized solution. In this cavity above the cicatrix the uterus was found retroverted and firmly fixed, forming the roof. The cavity was dressed with carbolized glycerine on cotton. Subsequent treatment was conducted by Dr.

Sibbald. He informs me that there has been no difficulty since, and that she now feels perfectly well.

Dr. W. H. Parish—That the treatment adopted in this case was proper the results showed, though it was not in accordance with the treatment directed by the text-books. We are there told to puncture the cavity with a trocar and draw off the confined liquid drop by drop. This is undoubtedly wrong, and its disadvantages have been demonstrated in my own practice. The crucial incision is undoubtedly the best.

Dr. Collins related the details of a case treated in the manner of the text-books by exploratory needle, trocar and drop by drop drainage. The cartilaginous membrane, acting as septum, was one and a half inches from the vulva and probably congenital. A crucial incision was made after drainage and the corners cut off; and no further trouble was experienced by the patient.

Dr. Montgomery, in closing the discussion, said: As Dr. Parish has said, the free incision is best, though it was precipitated in the case related by an opening occurring during examination. The danger of septicæmia is certainly increased by a small opening. A particular point of interest in this case was the lateness in life, and the time that elapsed between the injury and the retention.

Special Article.

STATEMENT RELATING TO THE INTERNATIONAL COLLECTIVE INVESTIGATION OF DISEASE PROPOSED AT THE INTERNATIONAL MEDICAL CONGRESS AT COPENHAGEN.

The General Meeting of the International Medical Congress, held at Copenhagen on August 14th, 1884, upon propositions made by Sir James Paget, Prof. Ewald, of Berlin, Prof. Bouchard, of Paris, and Dr. Billings, of Washington, passed the following resolutions:

1. That an International Committee be formed for the Collective Investigation of Disease, in connection with the work of the International Medical Congress.

2. That the following gentlemen do represent their respective countries theron:

As Representatives of Denmark.—Profs. Trier and C. Lange, of Copenhagen.

As Representative of Scandinavia.—Dr. E. Bull, of Christiania.

As Representative of Russia.—Dr. Rauchfuss, of St. Petersburg.

As Representatives of Germany.—Profs. Ewald and Bernhardt, of Berlin.

As Representatives of Austria-Hungary.—Profs. Schnitzler, of Vienna, and Pribram, of Prague.

To whom was added by co-aptation—Prof. Koranyi, of Buda-Pest.

As Representative of Switzerland.—Prof. Despine, of Geneva.

As Repsentatives of France.—Prof. Bouchard, of Paris, and Dr. Lepine, of Lyon.

As Representatives of Great Britain and Ireland.—Sir William W. Gull, Bart., Prof. Humphry, of Cambridge, and Dr. Mahomed, of London.

As Representative of British India.—Sir Joseph Fayrer, K. C. S. I.

As Representatives of the United States.—Profs. Jacobi, of New York, and N. S. Davis, of Chicago.

As Repsentative of South America.—Dr. Gutierrez-Ponce, of Paris.

As Secretary-General.—Dr. Isambard Owen, of London.

Representatives of other Countries to be hereafter appointed.

In accordance with the following resolution of the first meeting of the above Committee, held at Copenhagen on the following day, viz:

"That the Secretary be instructed to prepare a statement as to the objects of the Committee, for translation and publication in the journals of the various countries represented;"

I beg leave to submit the following statement to the members of the Medical profession of———

ISAMBARD OWEN,
Secretary-General.
5 Hertford St., Mayfair, London.

The main objects which the Committee seeks to attain through the Collective Investigation of Disease are to widen the basis of Medical Science; to gather and store the mass of information that at present goes to waste; to verify or correct existing opinions; to discover laws where now only irregularity is perceived; to amplify our knowledge of rare affections, and to

ascertain such points as the geographical distribution of diseases and their modifications in different districts. It will be its endeavor to place clearly before the whole profession the limits and defects of existing knowledge, as well as to stimulate observation, and to give it a definite direction. It will be a not unimportant incidental result of its work should it tend, as is hoped, to the better training of the members of the profession in habits of scientific and practical observation, and in systematic methods of recording the facts which they observe.

The age in which we live has seen enormous advances in the sciences on which the fabric of Medicine rests, such as Chemistry and other branches of Physics, Physiology and Pathology. Each of these has taken giant strides. It must be admitted, however, that purely medical knowledge has scarcely made proportionate progress. It cannot be expected that it should do so, as it deals with the aberrations of the most complex of organisms, is of all sciences the most difficult, and demands the greatest patience and the largest accumulation of data.

Hitherto the advancement of Medical Science has been brought about mainly by individual effort. The value of such work in the past we in no way underrate, nor do we desire to lessen the amount of it in the future; but in Medical Science there is much that defies interpretation from individual experience, and many problems so far-reaching in an ever-widening field, with elements so manifold, that no single man, however gifted and long-lived, can hope to bring the whole within his range. The need, therefore, in Medicine, of that combination and cnncentration of individual work which is adopted in many other branches of science and in commerce, and to which increasing facilities of intercommunication have given so much impulse and so much strength, cannot be questioned. Indeed, it may be said that, resting on individual research alone, medical knowledge can be advanced but slowly and with difficulty. Future progress to any great extent must be the work, not of units acting disconnectedly, but of the collected force of many acting as one. For many to act as one, organization is needed; that organization it is the purpose of our Committee to supply.

Disease is many-sided; and we wish to include in our organization those who see it from every side. All, therefore, whether hospital physicians, family and school attendants, specialists, medical officers of the army and navy, and of workhouses and asylums, will be asked to contribute their quota of observation to the common fund.

In England and in Germany organizations for this purpose already exist, through which good work has been accomplished; and a volume entitled the *Collective Investigation Record*, containing tabulated returns, with reports upon them and other matter, is published annually by the British Medical Association. France and Austria are alive to the importancee of the new method. In Scandinavia and in the United States the foundations of associations have been laid. Denmark, Russia and Switzerland are setting their hands to the task. To unite these several associations by an international organization for the study of various problems, and to induce the formation of similar combinations elsewhere, is felt to be a work peculiarly befitting an International Congress. Our Committee is enjoined by the Congress at Copenhagen to endeavor to carry out this work, and, in compliance with that injunction, it invites the co-operation of all who have at heart the promotion of medical science and practice.

The following is the proposed method: A subject having been selected, a person or persons of acknowledged authority will be asked to write a memorandum, in the form of a short essay, upon it. The memorandum will succinctly give the present state of our knowledge. It will also point out the directions in which further research may best be made; and, with this view, will suggest a few simple and definite questions upon the subject selected. The questions will relate to matters of fact, to be elicited by observation of cases, rather than to matters of opinion.

The contemplated organisation will, it is hoped, in time enable the Committee to ask and collect answers to these questions from the profession at large wherever scientific medicine is studied or practised. It will be a further duty to examine, arrange, tabulate, and deduce results from the mass of observations thus collected, due credit being given to each contributor for the information furnished; and reports on the results of the several investigations will be laid before the International Congress at its next meeting at Washington.

Correspondence.

SOME CLINICAL OBSERVATIONS ON MURIATE OF COCAINE.

New York City, Oct. 21st, 1884.

To the Editori of the Md. Med. Journal:

Since the publication of the letter by Dr. Noyes, from Europe, regarding the local anæsthethic effect of muriate of cocaine on the mucous, submucous and corneal tissues, there has been considerable experience gained by the use of the drug; and as I had the opportunity of observing a number of skilled operators using it, I thought it worth while to publish the results of my observations.

For the benefit of those who may not be familiar with the very recent discoveries that have been made in connection with this drug, I will give a resumé of what has been done.

A medical student in Vienna, by mistake for some other collyrium, put a solution of cocaine in his eye, and shortly afterwards experienced a temporary loss of sensibility from the effects.

The strength of the drug usually employed is a two to four per cent. solution, and when a drop of the solution is put in the eye the anæsthesia is quite manifest in three to five minutes; the cornea can be touched without producing any sensation, and the conjunctiva can be picked up with a pair of fixation forceps without any discomfort.

The anæsthetic effects of cocaine have been known to laryngologists for over a year, as it has been employed by them to produce anæsthesia of the larynx in laryngoscopy.

Of those that have used the drug for its peculiar effects I have seen Drs. D. B. St. J. Roosa, Agnew, Knapp and others. Tenotomy for the correction of squint is done without giving much if any pain, and if pain is caused it is when the tendon is divided; but I have not heard any one complain much. For the removal of foreign bodies embeded in the cornea it is eminently well suited. The nasal duct can be probed with much less pain when the drug is used.

A cataract extraction by Dr. Knapp, with cocaine, was done without any pain, with the exception that a little sensation was experienced when the iridectomy was made; the patient laughed during the corneal section. In this case a four per cent. (Squibbs') solution was employed.

It will relieve blepharo spasm in those cases where the character of the inflammation does not prevent or hinder absorption. If its effect for the just-named purpose is only temporary it will be of much use in facilitating a more thorough examination of the eye, especially in children. Dilatation of the pupil is said to have been observed by some. Even where a new pipette had been used (I myself have not observed this effect) it takes place after anæsthesia passes off, which is generally within thirty minutes. In using the drug for operative purposes it is usual to instil in the eye a drop or more every five minutes for twenty minutes before the operation. In doing tenotomy the section of the conjunctiva and Tenon's capsule is made without any pain; immediately after this is done the wound should be wiped dry as possible, and then a drop should be put in the wound so that the drug will come in contact with the tendon, etc., and thereby produce a more direct anæsthesia for the tenotomy.

The preparation made by Merck is found to give good results, although some furnished by Dr. Squibb seemed to act more efficiently.

There is no doubt that there is a great field of usefulness in store since the discovery of the action of cocaine on the eye, not only in ophthalmic practice, but numberless uses in the general practice of medicine which will suggest itself to each indidiual observer.

E. Meierhof, M. D.

Editorial.

Cocaine Hydrochlorate, the New Local Anæsthetic.—The scientific world, in its energetic search for novelties and new facts, is constantly presenting to the medical profession agents claiming to possess valuable therapeutic properties. The vast majority of these remedies fall into disrepute and disuse after a brief trial, notwithstanding the most extraordinary and brilliant results claimed for them. Out of this vast amount of therapeutic rubbish annually produced but few valuable drugs are secured. These few additions become permanent accessions

to the available resources of practical medicine, and add that much to the domain of actual knowledge. This active, diligent search for remedies is not an unmitigated evil as many believe. It has its useful purpose and is therefore worthy of toleration if not of encouragement.

The latest novelty brought to prominent notice is Cocaine Hydrochlorate, an agent which, it seems, from recent testimony, has the property of abolishing pain when applied locally to mucous or cutaneous surfaces.

So far the remedy has been used chiefly by oculists in ophthalmic surgery for abolishing pain during operations upon the conjunctiva and iris. In the *Med. Record*, of Oct. 18th, the experiences of Drs. C. R. Agnew, Wm. O. Moore and Jas. L. Minor, prominent oculists, of New York City, are given after a trial of this local anæsthetic in some ten cases. The following case related by Dr. Agnew illustrates the results of an experimental test of the drug:

"A. E., aged five; a case of convergent squint. A two per cent. solution of the hydrochlorate of cocaine was dropped upon the surface of each eye three times at intervals during a period of fifteen minutes, without any more irritation of the eyes than would have been caused by drops of common water. At the end of twenty-five minutes he walked into the operating-theatre, laid down upon the operating-chair, and allowed the spring speculum to be inserted between his eyelids, the scleral conjunctiva to be seized with fixation forceps and cut with scissors, and the rectus internus of the left eye to be divided without complaining or showing any signs of suffering. When we had the internus tendon upon the strabismus hook, he said we were pulling something."

Cocaine is not a new drug. It has been known since 1855 as the active principle of the leaves of erythroxylon coca, a South American plant used by the natives as a powerful stimulant. The hydrochlorate of cocaine is of more recent origin, and its anæsthetic effect has only been known about one year. It was first used in Germany by laryngologists to produce anæsthesia of the vocal cords and surrounding parts to facilitate manipulation.

Its use in eye surgery was first suggested by Dr. H. D. Noyes, of New York, who had witnessed its anæsthetic effects at the Ophthalmological Congress at Heidelberg.

So far as used as a local anæsthetic it has been a decided success. If its value is fully established by subsequent experiments it is reasonable to presume that its application will be extended to the numerous cases of minor surgery in which local anæsthesia is practicable. It is not safe to assume too much for a remedy which promises to render such valuable service to the profession. It will be remembered with what a furore and blow of trumpets bromide of ethyl was introduced to professional attention. We now seldom hear of this anæsthetic since its application has been limited to a very narrow range of cases. It is to be desired that cocaine hydrochlorate will fulfil the important rôle its present trial would seem to warrant.

The United States Representatives on the International Committee for the Collective Investigation of Disease have thus early inaugurated their work by publishing a "Statement" to be found elsewhere in our columns. The objects of this International Collective Investigation of disease were fully set forth in an able address delivered by Sir Wm. Gull before the late International Medical Congress, an editorial review of which was published in our issue of September 6th. The United States representatives, Drs. A. Jacobi, of New York City, and N. S. Davis, of Chicago, invite the cooperation of the profession in this country in the work in which they have engaged. It may be safely stated that no country affords wider opportunities than our own for the observation and collection of facts relating to clinical medicine. With a territory embracing the greatest differences of climate and atmospheric conditions, with a soil and coast exercising manifold influences upon the health of our people, and with a population made up of many nationalities it is evident that clinical facts thus collected will show, irregularities and modifications of disease not observed in European countries. The individual experience of the profession in this country is large and varied. We are of the opinion that the collection and arrangement of this experience will amplify our knowledge of many rare affections. A not unimportant result of this work of observing and recording clinical facts, is the influence it will have in the better training

of the profession in habits of accurate observation and scientific study. The profession of this country, as a whole, is sadly deficient in respect to the habit of carefully observing and recording clinical phenomena. But few practitioners keep a systematic and accurate record of important cases. The majority of practitioners are satisfied to store away their observations in the garners of their memory and to draw from this source their data for comparison and judgment in future emergencies. It is well known how uncertain and unreliable such observations become after being encased in the brain-cells of the average cranium for any length of time. The medical literature of this century teems with the hasty generalizations and slipshod observations of careless practitioners. There is wide room for improvement in the methods of gathering and storing the vast mass of information that at present goes to waste. Then let the contemplated work of the International Committee of Collective Investigation of Disease receive the earnest support and assistance of the profession.

A Courageous King.—The medical press abroad has extolled in complimentary language the courage, intelligence and humanity of King Humbert, of Italy, who has in different ways exposed himself to the contagium of cholera during the present epidemic raging among his people. A correspondent to the *Lancet* says that during the disastrous flood inthe Venetian territory two years ago, and during the calamitous earthquake in the island of Ischia last year the king endeared himself to his subjects, but this year in the choleraic centres of Piedmont he has shown a self-abnegation and paternal solicitude on their behalf which they love to associate with his sire, the "Re galantuomo."

"Modestly attired in a low, round hat, with walking-stick in hand, accompanied by the Prime Minister Depritis, by his adjutant, and by the local physicians, he has been visiting every hospital where the cholera patients are housed, going from bed to bed, inquiring into each individual case, taking note of the treatment and its results, addressing genial words of encouragement to the more desponding sufferers, and leaving substantial donations to each institution on his departure. Praiseworthy as such conduct would be in a country like ours, it is trebly so in Italy, where ignorance, superstition and centuries of insanitary prejudice have added tenfold to the miseries and the dangers of the cholera epidemic."

Miscellany.

The Toxic Effects of Chrome on the Nose, Throat and Ear.—In the September number of the "*Annales des Maladies de l'Oreille, du Larynx et des Organes Connexes*," Dr. John N. Mackenzie describes the lesions of the respiratory tract and middle ear in the workmen exposed to the floating bichromate dust in the chrome factories of this city. The most constant lesion is perforation of the anterior inferior portion of the cartilaginous septum, which is nearly always present and which takes place with great rapidity, and is commonly preceded by the symptoms of an ordinary coryza. Ulceration is occasionally met with in other portions of the nose, as the turbinated bodies and hair follicles of the vestibule and the nasal pharynx. The lower pharynx is sometimes the seat of well defined ulceration, while the condition of the lower air passages generally found is that of inflammation characterized by intense redness, moderate swelling and tendency to inspissation of secretion. Extensive destrution of the cartilage occurs without external deformity. Although there is a profuse muco-purulent discharge with abundant crust formation, there is little, if any, tendency to a condition of ozœna, the absence of odor being due to the fact that the agent which excites the discharge at the same time destroys the forms of life upon the presence of which the fœtor of such conditions is supposed to depend.

In some, purulent inflammation of the drum cavity occurs with perforation of the tympanic membrane. This is, in part, due to extension, but the membrane may possibly become corroded by direct contact of the bichromate dust.

There is a limit, however, to the destructive power of the corrosive agent on the cartilage and mucous membrane, which agrees with the known comportment of the poison in the presence of organic matter; for, when a molecule of chromic acid comes into contact with a molecule of organic matter, the latter is not only destroyed, but the acid, in accomplishing such

destruction, is rendered further innocuous by its conversion into an insoluble oxide.

The bichromate may affect the respiratory tract (1) by direct inhalation; (2) by its introduction through wounds in the skin, and (3) absorption through the mucous membrane of the digestive tract. Important data in the differentiation of this and allied conditions from syphilis are the absence of fœtor, the effect of simple medication, the self-limitation of the process and the absence of the deformity of the external nose, so characteristic of the latter disease.

A Case of Sarcoma Cutis.—Dr. Hardaway, of St. Louis (*Jour. of Cutan. and Vener. Dis., Oct.* 1884) reports a case of this rare disease in a patient aged fifty-six. The disease commenced about two years ago by the appearance of a smooth, somewhat transparent nodule on the lobule of the left ear, which itched slightly, but never scaled, wept or ulcerated. After six months it was excised and has never returned. About the time of this excision there appeared other nodules of the same character and size as the first lesion on the right side of the neck, just below the ear, and still others on the hands. On the latter the disease commenced by a diffuse patch of infiltration on the second finger of the left hand, and this was soon followed by the appearance of a similar patch on the corresponding finger of the right hand. After this the progress of the disease was slower. At the time of writing the ears are the seat of a diffuse violaceous infiltration; there is under the left eye a small purplish tumor, and over the right malar region is a patch of infiltrated skin of a dirty brown color; on the scrotum there are nine tumors, and in the perineal region are several others. The hands offer the most marked lesions. These consist of slightly elevated tumors and broad, flat infiltrations, distributed over both palmar and dorsal surfaces. On the fingers the infiltration has a cartilaginous feel, and is so massive as to prevent the closure of the hand. There are a few tumors of the legs. When the lesions first appear they are reddish in color, but soon attain a violaceous hue, with a peculiar glistening appearance. Some circular spots on the palm have assumed a lighter color and are depressed in their centre. The only subjective symptom complained of is an aching pain in the hands with occasional paroxysms of a lancinating character. The general color of the integument is peculiar, being yellowish brown. Continuing, the reporter refers to a case of alveolar-sarcoma of the skin, reported by him through the same journal in Jan., 1883; and notes the fact that although the two cases are entirely dissimilar in their history, course and lesional features, yet the new and small nodules in both are almost exactly alike in color, shape, elevation and other general features. It is only in a later stage that the clinical dissimilarity occurs. Another noteworthy fact—one well worth investigation in connection with these cases—is in regards to their malignancy. The prognosis in the the case of alveola-sarcoma from the histological standpoint was from the first grave, yet the disease developed slowly and has lasted now ten years, with the patient still in good health. On the other hand, in the case of fibro-sarcoma, a disease presumed to be much less malignant, the patient is found two years after the appearance of the first lesion in a very precarious condition of health, with internal organs evidently involved, showing a rapid development of the disease.

Successful Treatment of Snake-Bite by the Explosive Cautery.—Surgeon T. G. Wilcox, U. S. Army, reports the following case in the *Bost. Med. and Surg. Journ.:* The recent reports of fatal cases of snake-bite induce me to invite attention to a method adopted and found successful in the case of a soldier of troop I, Fourth Cavalry, at Camp Supply, Indian Territory, in the fall of 1878.

The patient was struck upon the dorsum of third phalanx of the forefinger while engaged in gathering wild grapes.

He reached me very soon after the occurrence, probably not more than ten minutes. The surface about the fang puncture was slightly moistened and as much gunpowder as could be retained placed on it. The powder was then ignited, the wound scarified, and powder again ignited upon it; then a light linseed poultice sprinkled with tinct. opii completed the dressing. Brandy was administered freely, and the patient soon fell asleep. The finger and hand were considerably swollen and discolored. There was slight nausea and depression, all of which soon passed off, and the man recovered.

I had learned of a case occurring among the Indians a short time before this, which was successfully treated by the explosive cautery, followed by a poultice of the chewed root of a species of chenopodium. No stimulants. In this case, that of a young squaw, the wound was on the leg.

This cautery is rapid, painless, and thorough, and if quickly applied appears to afford the best chances for recovery.

A Case of Subscapular Abscess.—Dr. Albert N. Blodgett, of Boston, narrates in the October number of the *The American Journal of the Medical Sciences* a very instructive case of this rare affection, and is believed to be the sixth on record.

The peculiar anatomical relations existins around and beneath the scapula gives to an acute inflammation, and to the results of such an inflammatlon in this region a degree of importance to which they would otherwise be in no way entitled. The broad, flattened costal surface of the shoulder-blade offers an unyielding barrier to the products of inflammation, the swelling, effusion, the slough of tissue, or the subsequent suppuration. The margins of the scapula are occupied by the insertion of numerous powerful muscles, or are fringed with dense and tense fascia, which, though allowing a moderate displacement by pressure from within, yet are grave obstructions to the relief of a deep-seated abscess by the process of natural evacuation. It will be remembered that the fascia of the neck plays a similar part in the history of deep carbuncle of this region; and to it may probably be ascribed in great measure the grave character and frequently the fatal issue of this affection. Thus we see that an acute inflammation in the tissues beneath the scapula is accompanied by conditions which can be likened only to those confined to, and found in three other parts of the body, viz., to the interior of the skull; to the sheaths of the tendons, particularly those of the digital flexors; and to the roots of the teeth within the alveolar process. The course of the disease in its progress toward spontaneous cure, in the patient whose history forms the foundation of this article, illustrates the truth of this comparison in an indisputable manner.

The study of Dr. Blodgett's case is interesting for the following reasons: 1. The occurrence of an acute inflammation in a confined locality, to which it is restrained by an overlying surface of bone which cannot yield to pressure, without causing necrosis, exfoliation, or perforation of the bone. 2. The absence of injury to the vertebræ, which lie in dangerous proximity to the seat of disease. 3. Absence of caries or necrosis of the ribs, which formed one wall of the suppurating cavity. 4. And most surprising of all, the evacuation of the purulent fluid through a false channel, of comparatively very great length, by means of localized peritonitis and adhesive inflammation of the abdominal viscera, and perforation of two layers of peritoneum, and the wall of the intestine, without the occurrence of fatal peritonitis, or of septicæmia, or any other serious complication; and 5. Finally, the existence of a tense abscess in a confined locality upon the chest-wall, with the formation of a long sinus in the space between adjacent ribs, without a perforation of the parietal pleura, and the occurrence of a traumatic empyæma; or adhesive inflammation of the opposed pleural surfaces and perforation into the pulmonary structure, with rupture into a blood-vessel or into a bronchus.

When it is possible to establish the diagnosis of subscapular abscess at an early period in the disease, the surgeon would certainly feel that operative interference for the purpose of affording an outlet for the products of inflammation would be not only justifiable, but an imperative duty. The diagnosis may not be easy, and in the case here narrated the true nature of the disease was not recognized by the attending surgeon; but when the presence of pus beneath the shoulder-blade is once determined, no time should be lost in providing a path for its evacuation.

Uterine Displacements and Their Treatment by Means of Medicated Tampons.—Dr. R. Bell's paper (*Edinb. Med. Jour.*, March, 1884,) was read before the Edinburgh Obstetrical Society, and offers objections to the too frequent use of the pessary. The views of the author, like those of other gynæcologists, have undergone a change upon this subject. The medication to which the tampons (cotton-wool) are subjected is with a mixture of glycerin and alum, and it is maintained that they act (1) as a support to the uterus; (2) as a depleting agent; (3) as an invigorat-

ing agent to the uterus and vagina. The condition for which this treatment is especially applicable is retroflexion, and the symptoms which follow such a condition, especially from altered mechanical relations, are too well known to require specification. Prolapsus is also a condition which is amenable to this treatment. Improvement is the rule, by the adoption of this method, and sometimes cure may be effected. In other cases the subsequent use of a pessary completes a cure which has been already begun.—*N. Y. Med. Journal.*

Mumps as a Cause of Sudden Deafness.—Disease of the ear during the progress of acute infectious disorders is a not infrequent occurrence. Especially are suppurative inflammations of the middle ear common during the progress of scarlet fever, and non-suppurative inflammations are a frequent attendant upon the progress of measles. The nature and treatment of these ear diseases are well understood. But occasionally during the progress of mumps a sudden and complete loss of hearing occurs which is not well known, either as to its nature or its treatment, and a paper on the subject from the pen of Dr. Leartus Connor, of Detroit, which appears in the October nuber of *The American Journal of the Medical Science*, is both timely and instructive.

As the result of his personal oxperience and of the study of thirty-three recorded cases, Dr. Connor concludes that—

1. Mumps do in some rare cases produce complete deafness.

2. This deafness is usually attended with all the evidences of disease of the labyrinth.

3. These show that it sometimes begins in the cochlea, but more frequently in the semicircular canals.

4. Owing to the lack of early observation and treatment it is impossible to say that it is not transmitted through the middle ear from the parotids to the labyrinth.

5. The history of some of the cases would seem to suggest that such an origin was possible.

6. This possibility renders it very important that every case of deafness during an attack of mumps be at once carefully examined, so as to settle the question.

7. This possibility offers the only hope for the successful treatment of these cases so as to prevent deafness. Thus, if there be a middle ear disease, we might hope that revulsive and counter-irritant treatment would arrest the disease and save the labyrinth.

8. As to treatment of the labyrinthine disease nothing has thus far been devised that has produced any satisfactory result.

Dr. Alexander Harkin, in the *Lancet* of Aug. 16, writes regarding the treatment of cholera. In the first or diarrhœal stage he prefers hourly doses of 20 to 30 drops of dilute sulphuric acid, mustard or turpentine epithems to abdomen and iced-water *ad libitum*. In the second stage he finds that counter-irritation over the vagus nerves fails to stop the violent vomiting and purging, and also produces a stimulating effect. He uses for this purpose the epispastic solution of the British Pharmacopœia applied freely with a brush behind the ear and on the neck as far as the angle of the inferior maxillary. In the stage of collapse he recommends the use of Dr. Hall's method, viz.: a subcutaneous injection of a chloral hydrate solution, 10 gr. to 100 parts of water in four or five different places. This to be repeated if reaction does not commence in an hour. This soothes the nerves and relaxes the contracted vessels; the circulation is restored and the cramps and abdominal pain disappear; respiration becomes regular and the secretions natural. Eight to nine per cent. of cures is reported as the result of this treatment.

Disputing a Doctor's Bill.—A curious case came before the County Court judge at Poole, last Monday, in which a medical man brought an action to recover 21*l*. for medical attendance. The defendant instead of paying the account accused the doctor of having poisoned the patient, who was suffering from Bright's disease, by giving her strong acid internally. The defendant's case was argued by his wife, who, however, had no facts whatever wherewith to support the charge of poisoning, and the result was a verdict for the plaintiff for the full fee charged.—*Lond. Med. Times and Gaz.*

Iodoform-Collodion in Erysipelas.—A solution of iodoform in collodion of the strength of one to ten has been found to be serviceable in the treatment of erysipelas. The solution is painted over the affected

skin and extended a little beyond the boundaries of the disease. In some cases the application stopped the disease at once. The burning pain was promptly alleviated; in no case did the disease extend after the the first application, and in no case did vesication occur. There was also remarkable freedom from irritation during the period of desquamation following the subsidence of the disease. Tinctura ferri chlor. was given internally in some cases; but in a case in which it was not administered the iodoform proved efficient in checking the disease.—*C. C. Burman, Practitioner*, May, 1884.

Naphthol in the Treatment of Scabies.—Dr. Samuel Rona has treated a number of cases of itch by a ten to twenty per cent. solution of naphthol in oil. If chronic eczema coexist the solution should not be stronger than two or three per cent. In upward of a hundred cases in which the remedy was tried the author never saw any poisoning, the only effect of using too concentrated solutions being the production of eczema. The application should be made in the evening, all the parts affected with scabies being thoroughly rubbed with the preparation. The next morning the patient takes a bath, and all the surface reddened by irritation of the naphthol is dusted with rice powder. Usually one application is sufficient for a cure. Sometimes an intense itching persists for some days, but this was attributed to the coexisting eczema.—*La France Medicale*, Sept. 2, 1884.

A Case of Tic Convulsif is reported by Dr. G. Zesas (*Wiener Med., Woch.* March 2, 1884), as cured by stretching of the facial nerve. The skin was divided and the nerve exposed behind the ear. It was then stretched five times in its centre and also peripherally. On the fifth day after the operation the pains decreased in severity, and continued to do so until they finally ceased entirely a month and a half afterwards. Since that time, now several months, she has not suffered from the complaint.

Burdock Seed in Psoriasis.—Dr. A. B. Poor, of Cedar Rapids, Ind., (*Journ. Cutan. and Ven. Dis.*, Oct., 1884) reports two cases of psoriasis of ten and twelve years standing respectively as cured by tinct. of burdock seed in doses of fifteen dops t. i. d. In one case the disease recurred two months after cure, but again disappeared upon renewal of the treatment. In the other case the treatment has been kept up in smaller doses ever since the disappearance of the lesions.

Another Treatment for Gonorrhœa is brought out by Dr. Kirchbaur (*Allg. Med. Centr. Zeit.* July 5), and was suggested on the presumed bacterial origin of the disease. It consists of an injection of a four per cent. solution of boracic acid. The purulent discharge was changed to a mucous one by the fourth day, a cure resulting by the end of the second week.—*Med. and Surg. Reporter.*

Injections of water, as hot as can be borne, and hot water as a drink, is recommended in cholera morbus by Dr. L. J. Woollen, of Vevay, Ind., in the *Amer. Practitioner*, p. 254.

Medical Items.

The Medical College of Virginia, we are informed by the *Va. Med. Monthly*, has opened its session with a class of sixty students. This school at one time enjoyed a high reputation, but through political influence it fell into disrepute. It has been reorganized by a new faculty and has again started upon a high basis. There is no reason why it should not recover its former influence and creditable standing.=The dissentions between the two factions claiming to be the Baltimore Medical College have been freely ventilated by the secular press of this city. The state of the controversy has not changed and the claims to the right of title and property of the college will have to be decided by the courts. Two Faculties having separate buildings are instructing students under the charter of the Baltimore Medical College. This is a unique controversy, and its results will be watched with interest. So far as we can judge, the Monroe faction seems to have the advantage up to the present time.=An exchange says, "Sir William Lawrence defined surgical cases as those which pay fees, all others are medical."=The *Therapeutic Gazette* will, in January, 1885, increase its number of pages from 48 to 72, and its subscription price from $1.00 to $2.00. The editorial depart-

ment will be moved from Detroit to Philadelphia. Dr. Horatio C. Wood and Dr. R. Meade Smith, of Philadelphia, assume the editorial management. It is needless to say the *Gazette* will prosper under this change of circumstances.=Dr. T. Gaillard Thomas stated at the late meeting of the American Gynecological Society that he had substituted chloroform for ether in all cases in which there is any renal disease. Ether has a peculiarly irritant action upon renal structures in a pathological state. In chronic Bright's disease, ether frequently induces uræmia by suppression of the urinary secretion.=It is stated that Mr. Wm. H. Vanderbilt has donated one half million dollars as a building fund to the College of Physicians and Surgeons of New York City.=St. Luke's Home for the Sick, of Richmond, Va., an institution designed chiefly as a surgical hospital is congratulated by the *Va. Med. Monthly* upon its success and able managment. Dr. Hunter McGuire is the surgeon in charge of the "Home."=The *Medical Chronicle* is the title of a new medical journal published in Manchester, England, the initial number of which is just out.=Dr. Wm. Osler, the newly-elected Professor of Clinical Medicine in the University of Pennsylvania, was tendered a farewell reception by the profession of Montreal as a compliment to his medical and scientific ability and his qualities as a man.=Dr. Howard A. Kelly, of Philadelphia, reports in the *Med. News* the death of a woman induced by wearing a pessary continuously for fourteen years.=Dr. Henry C. Leffmann, of Philadelphia, has been elected Demonstrator of Chemistry at the Jefferson Medical College.

Official List of Changes in the Stations and Duties of Officers Serving in the Medical Department, U. S. Army, from Oct. 14th, 1884, to Oct. 20th, 1884:

Norris, Basil, Lieut. Col. and Surgeon, relieved from duty as Attending Surgeon, Washington, D. C., and ordered for duty as Medical Director Division of the Pacific and Department of California, relieving Surgeon E. J. Baily. Col. Baily, on being relieved, will assume the duties of Attending Surgeon at San Francisco, Cal.

Spencer, Wm. C., Major and Surgeon, from Department of Dakota to Department East.

Goddard, Chas. E., Major and Surgeon, to be relieved from duty at Jefferson Bar racks, Mo., and to report for duty in Department of Dakota.

McClellan, Ely, Major and Surgeon, from Department of the East to duty at Cavalry Depot, Jefferson Barracks, Mo.

Wolverton, W. D., Major and Surgeon, granted one month's leave of absence, to take effect when his services can be spared by his post commander.

Winne, C. K., Captain and Assistant Surgeon, in addition to his duties as Post Surgeon at Benicia Barracks, will also attend the sick at Benicia Arsenal, Cal.

Havard, Valery, Captain and Assistant Surgeon, assigned to temporary duty at Fort Schuyler, New York Harbor, N. Y.

Porter, J. Y., Captain and Assistant Surgeon, granted leave of absence for one month, on surgeon's certificate of disability, with permission to leave the limits of the department.

Phillips, Jno. L., First Lieutenant and Assistant Surgeon, transferred from Department of the East to Department of Dakota.

Official List of Changes in the Medical Corps of the U. S. Navy during the week ending Oct. 18th, 1884:

Brush, Geo. R., Surgeon, to temporary duty at the Naval Laboratory. Oct. 11, 1884.

Burbank, Chas. H., Medical Inspector, detached from the Brooklyn and placed on waiting orders. 15th Oct., 1884.

Clark, John H., Surgeon, detached from the Lackawanna and detailed as Fleet Surgeon of the Pacific Station. Oct. 17, 1884.

Cooke, George H., Surgeon, to the Lackawanna. 17th Oct., 1884.

Edgar, John M., Passed Assist. Sur., to the Receiving Ship Franklin. Oct. 11, 1884.

Hudson, A., Medical Inspector, detached from the Lancaster and placed on waiting orders. 14th Oct., 1884.

Hugg, Joseph, Surgeon, placed on waiting orders. 13th Oct., 1884.

Lovering, P. A., Passed Assistant Surgeon, detached from the Lackawanna and placed on waiting orders. 17th Oct., 1884.

Marsteller, E. H., Passed Assistant Surgeon, detached from the Monongahela and ordered to the Lackawanna. 17th Oct., 1884.

Martin, William, Assistant Surgeon, detached from the Passaic and placed on waiting orders. 14th Oct., 1884.

Martin, H. M., passed Ast. Sur., detached from the B'lyn and placed on waiting orders.

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